

A CATALOGUE
OF
THE FLORA
OF
MATHERAN AND MAHABLESHWAR

H. M. BIRDWOOD

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BOMBAY
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A CATALOGUE
OF
THE FLORA
OF
MATHERAN AND MAHABLESHWAR.
(REVISED EDITION.)

BY
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WITH A NOTE BY
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A CATALOGUE
OF THE FLORA OF MATHERAN AND MAHABLESHWAR.

BY H. M. BIRDWOOD.

"There is a pleasure in the pathless woods."

"Flowers of all heavens, and lovelier than their names,
Grew side by side."

IN now offering to the Society a third edition of the Catalogue of the Flora of Matheran, published in Vol. I of our Journal, and a second edition of the combined Matheran and Mahableshwar Catalogues which appeared in Vol. II, I ought perhaps to explain that I do so, not because those catalogues, as separately published by the Society in pamphlet form, are out of print,—for, so far as I know, there has been no great demand for them,—but because their publication has proved of use in one of the ways I particularly desired, and various members of the Society have been induced to make a special study of our Hill Flora and have made many additions to my lists; and it seems desirable that the result of their researches during the last nine years should now be recorded in the Journal. The Catalogue is indeed still far from complete, for the obvious reason that, during the four rainy months of the year, when most of the herbaceous plants are at their best, the hills are practically inaccessible to most of us, and even in the dry months our visits to Matheran and Mahableshwar are far too short and too much pre-occupied with other business to be turned to much scientific account. Yet, with the aid of such competent botanists as the Revd. Dr. Fairbank, the late Mr. Gustav Carstensen, the Revd. A. K. Nairne, Dr. Theodore Cooke, Surgeon-Major Kirtikar, Mr. Marshall Woodrow, Dr. Lisboa, the late Mr. Chester Macnaghten, Dr. MacDonald, Mr. James MacDonald and Mr. Dhargalker, I have now been able to add 183 names to the list published in 1887, which included 493 plants, whereas the present list contains 676 names.* And a great pleasure it has been to identify the new plants as they were collected from time to time. Only a few months ago, I had several new discoveries communicated to me by Mr. John Macpherson, and among them the beautiful Larkspur, *Delphinium dasycaulon*, a plant between two and three feet high, with flowers of bright, metallic blue, which I have seen in abundant bloom at Purandhar, but had searched for in vain at Matheran, where it has now at last been found near Panorama Point; and even while

* See the Note at page 6.

these pages have been passing through the press, I have been indebted to Mr. W. P. Symonds for some important additions to the Catalogue. Nor can I forget the day when my faithful friend Vittu led me, with much solemnity, to a tree in the jungle below Chowk plateau, not many hundred yards from my own house,—a tree well known to him and others, afflicted like him, in the monsoon months, with dire, internal pains, which could only be cured by decoctions of its bark. This was the *Māharūk* or “the great tree,” the wild Cinnamon (*Cinnamomum tamala*). It is striking and handsome, though of no great size, with tufts, when first bursting into leaf, of small, pale, pink, transparent leaves, which afterwards lengthen and become pointed at both ends and have marked ribs or nerves, and are dark and shining above, and when dried turn to a rich brown, and yield a sweet, spicy scent, when crushed. I had never noticed it before, though I must have passed near it a hundred times. Nor had Dr. Wellington Gray ever noticed it, though he was a most enthusiastic searcher after plants, to whom we in Bombay are indebted for some of the loveliest of our garden plants, introduced by him during a long series of years. I have found only four specimens of the Cinnamon tree at Matheran and none at Mahableshwar. It seeds freely, however, and can be readily grown from seed; and I hope it will some day be as familiar in the public and private gardens of Bombay as many other trees of the Konkan and the Dekhan and other parts of India have lately become. Another notable tree (not before included in my lists), of which as yet I have seen only one specimen at Matheran, is the *Canarium strictum*, which yields a balsam, which is burnt as incense by some of the hill people at their religious services and is in much request for this purpose, and is allied to other balsamiferous trees which grow in profusion on the Ghāts traversed on the several routes to Mahableshwar. I have often wondered how it came to plant itself in the thick wood near the chauki, far from its congeners and hemmed in by countless aliens. Its position there is almost as remarkable as the isolated imprint of Friday’s foot on the sea shore, which so disconcerted that Prince of Naturalists, Robinson Crusoe.

It may be as well if I repeat here the reasons I gave in Vol. II for making a combined catalogue of the flora of Matheran and Mahableshwar. The vegetation of the two hills is not indeed identical. Dr. T. Cooke

estimated that, excluding grasses, about 140 flowering plants are found at Matheran which have not been seen at Mahableshwar, and 130 at Mahableshwar which have not been seen at Matheran. There are, no doubt, certain causes regulating the distribution of plants which are not equally operative at both places. Mahableshwar is about 70 miles nearer the Equator than Matheran. The latter rises from the plain of the Konkan, midway between the Western Ghâts and the sea; whereas Mahableshwar is further from the sea, and is, to all intents, a part of the range of Ghâts. The highest point of Matheran is about 2,500 feet above the sea-level; whereas the Mahableshwar plateau is at a general elevation of 4,500 feet above the sea, and at Sindola rises to 4,700 feet. These differing conditions are not without their effect. Some plants are found at Mahableshwar which will not thrive on the lower mountain-top. Some Matheran plants, on the other hand, find the higher levels of Mahableshwar beyond their range. I will give here only a few instances. The most casual observer is struck by the wonderful undergrowth of brake-fern at Mahableshwar, and of the arrowroot plant,—which, in the months of October and November, blooms on almost every square yard of the jungle,—and by the beautiful profusion of the *Osmunda* fern, mixed with brambles, clustering roses and willows, along the upper stream of the Yenna River. At Matheran, the brake-fern is scarcely known. In a few years it will be extinct, if it is not already so; for it cannot defy the onslaughts of thoughtless fern-hunters. It would be impossible for any number of fern-hunters to destroy it at Mahableshwar. Even if unmolested at Matheran, it drags on at best but a feeble existence. The site is too low for it, the lowest limit of its range in our latitude being probably at a line at least 2,000 feet above the sea-level. The *Osmunda* again is not known at Matheran; nor is the willow (*Salix tetrasperma*); nor the arrowroot (*Hitchenia caulina*); though other allied plants of the order *Scitamineæ* are plentiful enough. On the other hand, there are some well-known Matheran trees, such as the Kumbha (*Careya arborea*), the Malia or Indian Ebony (*Diospyros assimilis*), and the Chandara (*Macaranga Roxburghii*), which do not grow on the Mahableshwar plateau at all. Dr. T. Cooke made the flora of Mahableshwar and Matheran a special study for many years, and prepared a "Note" on the more prominent

plants on either hill which are not found on the other, which was published with the last edition of this Catalogue, and is so full of interest that I have asked Mr. Phipson to re-publish it as a supplement to this edition, and I have added to it a few notes based on the observations of the late Mr. Chester Macnaghten. But after full account is taken of all divergences, it will still be found that very many of the plants included in the Catalogue are common to the two hills. Such a coincidence is favoured by the practical identity of their geological formation, and by the circumstance that there is no great difference in the range of their mean temperature at different seasons and in their rainfall. Both Mahableshwar and Matheran are, roughly speaking, huge masses of trap, capped by a thin layer of laterite. Both are within sight of the sea. Both are swept by the same dry winds in the cold weather and by the same monsoon storms, and both enjoy the full benefit of the monsoon rains. Mr. N. A. Moos, Director of the Government Observatory at Colaba, has favoured me with information as to the temperature and rainfall on both hills, deduced from the figures recorded at the Observatory during a period of ten years; and it appears that the average mean temperature ranges at Mahableshwar from 63.3° F. to 71.7° ; and from 67.8° to 78.5° at Matheran. The average rainfall at Mahableshwar amounts to 281.4 inches; and at Matheran to 224.7 inches. Under such concordant influences, it is not surprising that a marked similarity should be noticeable in the general outward forms of vegetation on the two hills, due to the frequent presence of the same characteristic plants on both. Everywhere at Mahableshwar, as at Matheran, we find the Myrtle tribe represented by endless woods of the beautiful Jambul tree (*Eugenia Jambolana*), the Melastomas by the Anjan (*Memeocylon edule*), the Laurels by the Pisa (*Litsea Stocksii*), and the Madder tribe by the thorny Gela (*Randia dumetorum*). There is the same undergrowth of shrubs and herbaceous plants, the natural orders of "Leguminosæ," "Acanthaceæ" and "Compositæ" being specially and numerously represented. There are many showy climbers and trailers and creepers common to both hills; as there are Orchids and Dendrobiums and other parasitic plants; while everywhere the little silver-fern covers with equal impartiality every sheltered bank and rock. The flora of both Mahableshwar and

Matheran can, therefore, be conveniently included in a single Catalogue; and I have also included in my list a few plants which are not actually found on either hill, but which are conspicuous enough to catch the eye of even the most rapid traveller on the higher levels of the well-worn roads from Poona and Wathar to Panchgani and Mahableshwar, and also some plants noticed on the FitzGerald Ghât between Mahableshwar and Pertabgarh.

It only remains for me to add that this Catalogue is framed with the same object and on the same general plan as the former one. It is meant, with the aid of the appended index of vernacular names, to furnish a ready method of learning the scientific names of plants. Many visitors to the hills take an interest in learning those names even if they have no intention of undertaking the serious study of Botany in any of its various branches. With some, however, the interest thus acquired leads to further study, which becomes all the pleasanter for the knowledge which has been gained, without too much trouble, of the names by which the plants in which they are interested are known to the scientific world;—just as it is pleasanter and more profitable to study the grammar of a new language after the student has acquired some portion of its vocabulary, and learnt to speak it a little, than before.

In the first two columns of the Catalogue, the nomenclature adopted is that of Hooker's "Flora of British India," Vols. I to VI. The words "Herb. Co.," after the name of a plant in the second column, indicate that the Mahableshwar herbarium, presented to the Society by Dr. Theodore Cooke, contains a specimen of the plant. In the third column, the vernacular names are spelt according to the Hunterian system. The word 'vel' or 'yel,' which recurs frequently as a component part of a name, means a 'creeper' or 'climber.' The words 'lahan' and 'dhakta' (fem. 'dhakti') mean 'small,' 'motha' (fem. 'mothi') means 'big,' 'pandhra' means 'white,' 'kala' 'black,' 'tambda' 'red,' 'pivla' 'yellow,' and 'kadu' 'bitter.' The prefix 'ran' indicates a 'jungle' plant, or, as we should say, a 'wild' plant; though nearly all the plants in the list may be regarded as wild or indigenous on Mahableshwar or Matheran, the more notable exceptions being the hedgerow Rose, the Oak, the Casuarina, the Lantana, the Strawberry, the Eucalyptus, the Spanish "Lady of the Night."

(*Brugmansia candida*), the Mulberry, the Peach, the Coffee, the Cinchona, the Jack-tree (*Artocarpus integrifolia*), and the large yellow-flowered flax (*Reinwardtia trigyna*), which, however, is said by Major H. H. Lee, R. E., to be "found truly wild on Varandha Ghât" in the Satara District.—(*Gazetteer of the Bombay Presidency*, Vol. XIX, App. A). The home of the species of mulberry commonly grown in the Mahableshwar gardens "is probably China."—(Brandis.) According to Wight and Beddome, the Jack-tree is "wild in the mountain forests of the Western Ghâts, ascending to 4,000 feet." But Dr. Brandis remarks that "regarding its native home there is yet some uncertainty." The others have evidently been introduced within the last 50 years, but some of these have already established themselves more or less firmly.

In conclusion, I would desire to express my sincerest acknowledgments to the friends who have kindly helped me, either by communicating the names of new plants or in preparing this revised edition of the Catalogue for the press. My thanks and, I think I may add, the thanks of the Society are especially due to the Revd. Mr. Nairne, who has contributed many new names; to the Revd. Dr. Fairbank, who sent me the names of many ferns which were quite unknown to me; to Dr. Lisboa, for a complete list of the grasses found by him on both hills; to Surgeon-Major Kirtikar for a list of fungi and mosses, which he has prepared with much labour and with rare knowledge of this branch of the vegetable kingdom; and to Mr. James MacDonald, for revising the whole Catalogue with the utmost care and correcting the earlier proofs for the press.

As on former occasions, I trust that the Secretary will be able to issue separate interleaved copies of the Catalogue, with Dr. Cooke's note, for the use of those members of the Society who may desire to become better acquainted with the hill flora of this Presidency and be disposed to make any necessary corrections in the present list of names or to add new names.

NOTE.—Since the above prefatory Note was published in Vol. X of the Society's Journal, I have been able, with the aid of Mr. Woodrow, the Rev. Dr. Fairbank, Mr. Justice Parsons, Mr. Dhargalker, Mr. Macpherson, Lieut.-Col. W. S. Birdwood, and Brig.-Surgeon Lieut.-Col. Hay, to add 58 new names to the Catalogue, as then issued, which, as above noted, contained 676 names. At Mr. Woodrow's suggestion, I have excluded one name—"Cyperus umbellatus, Burm."—as it is doubtful what Burmann's plant was. The list, as now revised, contains, therefore, 733 names, or 246 more names than were contained in the second Edition of the Catalogue.—H. B., Bombay, 18th February, 1897.

A CATALOGUE OF THE FLORA OF MATHERAN AND MAHABLESHWAR.

DIVISION A—PHANEROGAMIA or FLOWERING PLANTS.

CLASS I.—DICOTYLEDONES or EXOGENS.*

Section (1)—Angiospermeæ.

SUB CLASS 1—THALAMIFLORE.†

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
1. Ranunculaceæ (The Buttercup Order).	<i>Clematis triloba</i> , Heyne...	Mahableshwar. (Symonds).
"	" <i>Gouriana</i> , Roxb.	Mor-yel, Ránjai.
"	" <i>hedysarifolia</i> , DC.	Common. (Woodrow).
"	" <i>Wightiana</i> , Wall.	Flowers yellow.
"	<i>Delphinium dasycaulon</i> , Presen.	Near Panorama Point, Matheran. (Macpherson).
2. Dilleniaceæ	<i>Dillenia pentagyna</i> , Roxb.	Karsmbal, Dhákta Karmal.
2a. Magnoliaceæ	<i>Michelia Champaca</i> , Linn.	Son- Champa. Golden Champa. Panchgani, Parr. (Fairbank).
3. Anonaceæ (The Custard-apple Order).	<i>Uvaria Narum</i> , Wall.....	Naram-panal.
"	" <i>lurida</i> , H. f. & T.	
"	<i>Bocagea Dalzellii</i> , H. f. & T.	Rahat-kinjal, Har-kinjal.
4. Menispermaceæ.....	<i>Cocculus macrocarpus</i> , W. & A., Herb. Co.	Vátoli, Vát-yel, Wátan-yel.
"	" <i>villosus</i> , DC.	Tán, Vásan-yel.
"	<i>Cyclea peltata</i> , H. f. & T., Herb. Co.	Pár-yel.
5. Papaveraceæ (The Poppy Order.)	<i>Argemone mexicana</i> , ‡ Linn., Herb. Co.	Pivls Dhotra, Mexican Poppy, Gamboge Thistle.

* In the seeds of Dicotyledonous there are always two cotyledons at least, and if there are two only, they are always opposite. In the section "Angiospermeæ" the ovules are enclosed in an ovary.

† The differences of the four sub-classes into which the section "Angiospermeæ" is divided "might be, in most cases, expressed thus:—

"1. Polypetalous—

Stamens hypogynous.....=Thalamifloræ.

Stamens perigynous.....=Calycifloræ.

"2. Monopetalous.....=Corollifloræ.

"3. Apetalous.....=Monochlamydeæ.

"It is, however, to be observed that some of the Calycifloræ and Thalamifloræ have a monopetalous corolla. In this classification, the student proceeds from what are considered the most perfectly organized Exogens to those which are least so. Thus, all the parts are present and distinct from each other in Thalamifloræ; other things remaining the same, the stamens adhere to the calyx in Calycifloræ; the stamens join the petals and the petals each other in Corollifloræ; and in Monochlamydeæ, first the corolla disappears, and then, among the most incomplete orders, the calyx also ceases to be developed." (Lindley's "School Botany.") Orders 42, 47, 48 in this Catalogue are placed under "Calycifloræ," in accordance with De Candolle's arrangement. According to the plan adopted by Lindley, who regards the essential mark of Corollifloræ to reside in the monopetalous corolla, these orders would come under "Corollifloræ."

‡ The *Argemone* is a small American genus, of which this species is "naturalized throughout India." (Hooker). It "has narcotico-acrid seeds" (Balfour).

Natural Order,	Genus and Species,	Vernacular or English name, use, habitat, &c.
6. Cruciferae (The Cabbage Order.)	<i>Nasturtium officinale</i> , Br., <i>Herb. Co.</i>	Water-cress.
"	<i>Cardamine subumbellata</i> , <i>Hook., Herb. Co.</i>	
"	<i>Capsella Bursa pastoris</i> , <i>Mench.</i>	Shepherd's purse. Flowers in January, Mahableshwar. (Woodrow).
7. Capparidæ (The Caper Order.)	<i>Crateva religiosa</i> , Forst....	Pertabgarh. (Parsons).
"	<i>Capparis spinosa</i> , Linn., <i>Herb. Co.</i>	Kabar. Caper. "The young flower buds are the capers of commerce." (Lee).
"	" " var. vulgaris.	Bed of nulla, near Cemetery, Mahableshwar. (Fairbank).
"	" <i>pedunculosa</i> , Wall.	Koliana, Koliara.
"	" <i>longispina</i> , H. f. & T., <i>Herb. Co.</i>	ib.
"	" <i>horrida</i> , Linn. f....	Tarti. Near Alexandra Point, Matheran.
8. Bixinea (The Arnotto Order.)	<i>Flacourtia Ramontchi</i> , <i>L' Herit., Herb. Co.</i>	Tāmbat, Sans. Svādu Kantak.
"	" <i>montana</i> , Griseb.	Atak. Near the Chauki, Matheran.
9. Pittosporæ	<i>Pittosporum floribundum</i> , <i>W. & A., Herb. Co.</i>	Yekadi.
10. Polygalæ (The Milk Wort Order.)	<i>Polygala persicariaefolia</i> , <i>DC.</i>	Mahableshwar Milk-wort.
11. Caryophyllæ (The Clove-wort Order.)	<i>Saponaria Vaccaria</i> , Linn.	Soapwort. Erect, rosy flowers. Flowers in February, Mahableshwar. (Woodrow).
"	<i>Stellaria media</i> , Linn ...	Chickweed. Frequent in December, Mahableshwar. (Woodrow).
"	<i>Polycarpon Lœfflingiæ</i> , <i>Benth. & Hook. f.</i>	Mahableshwar. Common in potato gardens above the lake. Flowers in April. (Cooke).
12. Portulacæ	<i>Portulaca oleracea</i> , Linn., <i>Herb. Co.</i>	Ghol-bāji.
13. Tamariscinæ	<i>Tamarix ericoides</i> , Rottl...	Jao, Sarub, Sarāta. Tamarisk. In the river bed near Nerul station. Smoked for asthma.
14. Guttiferae (The Gamboge Order.)	<i>Garcinia indica</i> , DC. ...	Kokam, Rātambā. Wild Mangosteen.
"	" <i>ovalifolia</i> , Hook. f.	Jangli Rāmphāl. Matheran Gamboja tree.
"	<i>Ochrocarpus longifolius</i> , <i>Benth.</i>	Harkia, Surangi, Satwin.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
15. Dipterocarpaceæ. (The Sumatra-Camphor Order.)	<i>Ancistrocladus Heyneanus, Wall.</i>	Kardor, Kardori, Karn-dori. A handsome, climbing shrub, with large, smooth, elliptic leaves and hooked branches. Fairly common at Matheran.
16. Malvaceæ. (The Mallow Order.)	<i>Sida carpinifolia, Linn. Herb. Co.</i>	Chikni, Chikan kada. It is used to make besoms, the twigs being at once supple and tough" (Leo).
"	<i>Abutilon polyandrum Schlecht.</i>	Bhendi, Rāmbāg, Matheran. A tall, handsome annual. Flowers pale yellow; nearly 2 inches in diameter.
"	<i>Urena sinuata, Linn., DC.</i>	Rān-Kāpai, Matheran, common. "It is like a pink geranium with gashed leaves." (Cooke)
"	<i>Hibiscus hirtus, Linn.</i>	On the Ghāt, Matheran.
"	<i>Thespesia Lampas, Dalz. & Gibb.</i>	Rān-bhendi, Lahān Bhen-di. Wild Bhendy. A handsome plant. Flowers large, yellow, with crimson centre.
"	<i>Kydia calycina, Roxb. ...</i>	Wāring. Near drinking well on Matheran Ghāt. Flowers in November.
"	<i>Bombax malabaricum, DC.</i>	Sāvar, Tambdi Sāvar. Silk-cotton tree. Sans, Rak-ta-salmali. The wood is "used for planking, packing cases, toys, scabbards, fishing-boats and for the lining of wells. * The calyx of the flower-bud is eaten as a vegetable. The fruit is collected before it opens, and the cotton with which it is filled is used to stuff quilts and pillows." (Brandis).
17. Sterculiaceæ	<i>Sterculia urens, ° Roxb. ...</i>	Kuāri, Rāndal, Pandruk.

* The *Sterculia urens*, though not common, is conspicuous on the Matheran Ghāt by its cream-coloured, pink and white, shining bark, the thin, transparent coating of which peels off "like that of the birch." Sitars (native guitars) are made of the wood. It yields a gum which is "sold under the name of *katila, katira*." The seeds are "eaten by Gonds and Kurkus in the Central Provinces," (Brandis).

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
17. Sterculiaceæ—Contd.	<i>Sterculia guttata</i> , <i>Roxb...</i>	Goldar. Fruit ripens in November-December. Fruit large, peach-shaped and covered with scarlet down.
"	" <i>colorata</i> , <i>Roxb...</i>	Kaushi. Ooral tree. The bark is "made into rope." (Brandis).
"	<i>Helicteres Isora</i> , <i>Linn. ...</i>	Kavan, Muradising. Matheran. Has leaves like a hazelnut bush. The ripe carpels form a brown, spirally-twisted, beaked cylinder. On FitzGerald Ghât, Mahableshwar.
"	<i>Eriolana Stocksii</i> , <i>H. f. & T.</i>	Beautiful yellow flowers. Below Chowk Point, Matheran.
18. Tiliaceæ (The Linden Order.)	<i>Grewia tiliaefolia</i> , <i>Fahl...</i>	Dhūman. "Made into shafts, shoulder poles for loads, pellet-bows, handles, masts, oars, employed in carriage building. From the inner bark cordage is made in Bombay. Twigs and leaves lopped for fodder. Fruit eaten, of an agreeable acid flavour" (Brandis).
"	" <i>pilosa</i> , <i>Lam.</i>	Tiral, Khiral, Shiral. On the FitzGerald Ghât.
"	" <i>Microcos</i> , <i>Lina...</i>	
"	<i>Erinocarpus Nimmoanus</i> , <i>Grah.</i>	Cher. Matheran Ghât, just above the second mile-stone from Neral. Fruits in October.
"	<i>Triumfetta pilosa</i> , <i>Roth.</i>	Kutre-vāndre, i.e., "Dogs and Monkeys."
"	" <i>rhomboidea</i> , <i>Jacq., Herb. Co.</i>	Necharda.
"	<i>Elæocarpus oblongus</i> , <i>Gærtn., Herb. Co.</i>	Kāsu, Kās. At Lingmala, at entrance to "Prospect Cottage" and on Panchgani Road, Mahableshwar.
19. Linææ (The Flax Order.)	<i>Linum mysorense</i> , <i>Heyne.</i>	Bāmburti, Wāndri. Yellow Flax.
"	<i>Reinwardtia trigyna</i> , <i>Hook.</i>	Abai. Large-flowered, yellow flax. In gardens at Mahableshwar and Matheran.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
20. Malpighiaceae	<i>Hiptage Madabloti</i> , <i>Gertn.</i>	Madhvel, Handsome climber, Panchgani.
21. Geraniaceae (The Cranesbill Order.)	<i>Oxalis corniculata</i> , <i>Lin.</i>	Nalkarda, Yellow Sorrel.
"	<i>Impatiens acaulis</i> , <i>Hook.</i>	Lahán Terda, Berki, Stemless Balsam. Rare at Matheran, Not so rare at Mahableshwar, where it grows on wet rocks near streams. Plentiful on FitzGerald Ghât. It is a small and very handsome plant, with large, pale mauve flowers. "Well worthy of a place in the conservatory" (Lee).
"	" <i>inconspicua</i> , <i>Wall.</i>	
"	" <i>oppositifolia</i> , <i>Lin.</i>	Sanmukh Patri, Terda.
"	" <i>Dalzellii</i> , <i>H. f. & T.</i>	Yellow Balsam.
"	" <i>Balsamina</i> , <i>Lin.</i>	Terda, Wild Balsam.
22. Rutaceae (The Rue and Orange Order.)	<i>Evodia Roxburghiana</i> , <i>Benth.</i>	Tikatna, i.e., "Thrice cleft." Near the Terraces on FitzGerald Ghât.
"	<i>Toddalia aculeata</i> , <i>Pers.</i>	Near Dhobi's waterfall, Mahableshwar, Rare.
"	<i>Glycosmis pentaphylla</i> , <i>Correa.</i>	Kirmira.
"	<i>Murraya exotica</i> , <i>Lin.</i> , var. <i>paniculata</i> , <i>Jack.</i>	Pándhri, Kuntî. Below Chowk and Hart Points, Matheran, Rare. Also below Dhobi's waterfall, Mahableshwar. A beautiful shrub, with white, fragrant flowers, like orange blossom.
"	" <i>Koenigii</i> , <i>Spreng.</i>	Kadhi-pák, Kadhi-nimb. Curry plant.
"	<i>Atalantia monophylla</i> , <i>Correa.</i>	Makadimba, i.e., "Monkey Lime."
23. Burseraceae (The Myrrh Order.)	<i>Boswellia serrata</i> , <i>Roxb.</i>	Sálpali, Sálera, Halera. Frankincense tree. On the Kartraj and Khandala Ghâts, on the road to Mahableshwar.
"	<i>Garuga pinnata</i> , <i>Roxb.</i> ...	Mongheri, Kadak, "Bark employed for tanning; a gum exudes from it. The fruit is eaten, raw and pickled" (Brandis). On Matheran Ghât.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
23. Burseraceæ (The Myrrh Order)— <i>Contd.</i>	<i>Canarium strictum</i> , <i>Roxb.</i>	Ud. A balsamiferous tree, yielding a gum (dhúp), burnt as incense by the hill people at their religious services. I have only seen one tree at Matheran, near the Chauki.
24. Meliaceæ (The Nimb-tree Order.)	<i>Cipadessa fruticosa</i> , <i>Blume.</i>	Naorungi. A shrub with pinnate leaves and clusters of small, round, red berries. On the old road to Mahableshwar.
"	<i>Soyimida febrifuga</i> , <i>Adr. Juss.</i>	Polara, Rehan. Bastard Cedar, Indian Redwood. "The bark is bitter, and has been used as a substitute for cinchona bark." (Brandis).
"	<i>Chickrassia tabularis</i> , <i>Adr. Juss.</i>	Kunuk, Chikras. Chowk Plateau.
"	<i>Cedrela Toona</i> , <i>Roxb.</i>	Tun, Rambag and Underwood, Matheran.
"	<i>Chloroxylon Swietenia</i> , <i>DC.</i>	Billu, Halda. Indian satin wood.
25. Olacineæ	<i>Mappia foetida</i> , <i>Miers.</i>	Gánera, Mahableshwar. The flowers have a very offensive smell.
"	" <i>oblonga</i> , <i>Miers.</i>	Mahableshwar. (Dhargalker)
SUB-CLASS 2.—CALYCIPOREÆ.		
26. Celastrineæ (The Spindletree Order.)	<i>Celastrus paniculata</i> , <i>Willd.</i>	Kangoni, Matheran.
"	<i>Gymnosporia Rothiana</i> , <i>W. & A.</i>	Ankli.
"	" <i>emarginata</i> , <i>Roth.</i>	Between the road and the Cemetery, Mahableshwar. (Nairne).
"	" <i>montana</i> , <i>Roxb.</i>	Yenkli, Ankli. The capsules are described by Hooker (vol. I, p. 621) as "numerous, with the size and look of a peppercorn," but in undried specimens the capsules are a good deal larger.
"	<i>Hippocratea Grahami</i> , <i>Wight.</i>	Yeoti. A climbing shrub, with winged, brown seeds. Common at Matheran.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
27. Rhamnaceæ (The Buck-thorn Order.)	<i>Ventilago madraspatana</i> , <i>Gertn.</i>	Kan-dvel, Lokhandi, Common at Matheran.
"	" <i>bombaiensis</i> , <i>Dalz.</i>	Kan-yel.
"	<i>Zizyphus glabrata</i> , <i>Heyne</i>	Harkia.
"	" <i>xylopyrus</i> , <i>Willd.</i>	Guti, Ghuti, Goti Toran, Hart Point, Matheran, and on the road to Garbet Point.
"	" <i>rugosa</i> , <i>Lamk.</i>	Toran. A prickly, climbing shrub. Fruit small, fleshy and sweet.
"	<i>Sentia indica</i> , <i>Brongn.</i>	Chimat. "Wait-a-bit" thorn. Not found at Matheran.
28. Ampelidæ (The Vine Order.)	<i>Vitis discolor</i> , <i>Dalz.</i>	Telicha-yel.
"	" <i>tomentosa</i> , <i>Heyne</i>	Shend-yel.
"	" <i>latifolia</i> , <i>Roxb.</i>	Nadena.
"	" <i>auriculata</i> , <i>Roxb.</i>	Jangli Kajerni.
"	" <i>lanceolata</i> , <i>Roxb.</i>	Kazoricha-yel.
"	<i>Leca sambucina</i> , <i>Willd.</i>	Dinda. Common at Matheran. Used as wattle for huts and fences. The young pinnate leaves are of a beautiful, transparent claret-colour.
29. Sapindaceæ (The Soapwort Order.)	<i>Hemigyrosa canescens</i> , <i>Thwaites.</i>	Lokhandi, Karpa.
"	<i>Allophylus Cobbe</i> , <i>Blume.</i>	Tipan. Not found at Matheran. Plentiful at Mahableshwar.
"	<i>Schleichera trijuga</i> , <i>Willd.</i>	Koshimb. Matheran Ghât.
"	<i>Sapindus trifoliatus</i> , <i>Lin.</i>	Ritha. Soapnut. Rambag, Matheran.
"	<i>Nephelium Longana</i> , <i>Cornb.</i>	Wumb. Lungani. "Fruit the size of a cherry, reddish or purple. Aril wholesome." (Lee). Koyna Valley.
"	<i>Turpinia pomifera</i> , <i>DC.</i>	Bhorambi, Chowk Plateau and Caryota grove. (Carstensen). Drupe three-celled, pear-shaped, velvety and pinkish-grey.
30. Anacardiaceæ (The Cashewnut Order.)	<i>Mangifera indica</i> , <i>Linn.</i>	Amb. Mango tree.
31. Connaraceæ	<i>Connarus monocarpus</i> , <i>Linn.</i>	Sundar.

* In many parts of India, *lac* is produced on the young branches of the *Schleichera*.
 " In Oudh, this tree is lopped, and the twigs and leaves are used as cattle-fodder during the dry seasons. Oil is extracted from the seeds in South India and Ceylon" (Brandis).*

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
32. Leguminosae (The Pea, Cassia and Acacia Order.)	<i>Crotalaria vestita</i> , Baker	
"	" <i>triquetra</i> , Dalz.	Ghâti.
"	" <i>nana</i> , Burm.	
"	" <i>retusa</i> , Linn.	Ghâgri.
"	" <i>Leschenaultii</i> , DC.	Dingala. <i>cf. Cooke</i>
"	<i>Indigofera pulchella</i> , Roxb.	Nerda, Wild Indigo, Near Yenna Falls and elsewhere.
"	<i>Geissapsis cristata</i> , W. & A.	Barki.
"	" <i>tenella</i> , Benth.	Lahan Barki.
"	<i>Zornia diphylla</i> , Pers.	Nâl-Barga, Barki.
"	<i>ib.</i> , var. <i>zeylonensis</i> , Pers.	Barga, Barki.
"	<i>Smithia purpurea</i> , Hook.	
"	" <i>setulosa</i> , Dalz.	Hambor.
"	" <i>blanda</i> , Wall.	Mothi Barki.
"	<i>Alysicarpus vaginalis</i> , DC.	Dhâktâ Dhâmpa.
"	var. <i>nummularifolius</i> .	
"	" <i>longifolius</i> , W. & A.	Dhâmpa.
"	<i>Desmodium Cephalotes</i> , Wall.	Lapoti, Matheran Ghât.
"	" <i>parviflorum</i> , Baker.	
"	<i>Dumasia villosa</i> , DC.	Mahableshtar, (Cooke).
"	<i>Erythrina indica</i> , Lam.	Pangara, Pâranga.
"	" <i>stricta</i> , Roxb.	Matheran.
"	<i>Butea frondosa</i> , [*] Roxb.	Palas, Khâkra. The "Flame of the Forest."
"	<i>Canavalia ensiformis</i> , var. <i>turgida</i> , Grah.	Handsome climber, with large, showy, lilac flowers. Western scarp of Mahableshtar. (Woodrow).
"	<i>Phaseolus trinervius</i> , Heyne.	Mungi, Matki, Lentil.
"	<i>Vigna vexillata</i> , Benth.	Halunda, Indian Sweet Pea.
"	<i>Atylosia lineata</i> , W. & A.	Rân Târ.
"	" <i>sericea</i> , Benth.	Mahableshtar. (Woodrow).
"	" <i>rostrata</i> , Baker.	Kula.
"	<i>Cylista scariosa</i> , Ait.	Rân Ghevda.
"	<i>Flemingia strobilifera</i> , R.	Kânphuti.
"	<i>Dalbergia latifolia</i> , Roxb.	Sisam, Blackwood tree.
"	" <i>sympathetica</i> , Nimmo.	Pendguli-yel, Yek-yel, Ekyel.

* The flowers of the Palas tree are made with alum into the yellow dye used at the *Holi* festival (Brandia). This tree gives its name to the memorable plain of *Palasi*, vulgarly called "Plassey." (Graham's "Catalogue" and G. Birdwood's "Vegetable Products.")

Natural Order.	Genus and Species,	Vernacular or English name, use, habitat, &c.
32. Leguminosæ (The Pea, Cassia and Acacia Order.)—Contd.	<i>Dalbergia volubilis</i> , Roxb.	Alei, Petungli.
"	" <i>paniculata</i> , Roxb.	Phánsi, Matheran Ghât.
"	" <i>monosperma</i> , Dals.	Garud-yel. Chowk Plateau.
"	<i>Pongamia glabra</i> , Vent.	Karanj. At the Terraces, Mahableshwar. (Symonds)
"	<i>Derris oblonga</i> , Benth.	Karkhandicha-yel.
"	" <i>brevipes</i> , Baker	
"	<i>Mezoneurum cucullatum</i> , W. & A.	Rági.
"	<i>Wagatea spicata</i> , Dals.	Vagáti.
"	<i>Cassia fistula</i> , DC.	Báhawa. Indian Laburnum.
"	<i>Bauhinia racemosa</i> , Lamk.	Apta, Wanráj.
"	" <i>malabarica</i> , Roxb.	Kánchan, Panchawa.
"	" <i>Vahlí</i> , W. & A.	Chámbuli, Chám-yel.
"	<i>Acácia Suma</i> , Kurz.	Khair, <i>Catechu</i> is manufactured from the wood.
"	" <i>concinna</i> , DC.	Chikakai, Shikakai, Shemli.
"	" <i>Intsia</i> , Willd.	Chálar, FitzGerald Ghât.
"	<i>Albizzia stipulata</i> , Boivin.	Lullei, Laeli, Adal.
"	" <i>amara</i> , Boivin	Siras, Alexandra Point.
33. Rosaceæ (The Rose Order.)	<i>Prunus persica</i> , Benth. & Hook. f.	The Peach. Cultivated at Panchgani.
"	<i>Pygeum Gardneri</i> , Hook. f.	Kaula, Gogal, Dákha.
"	<i>Rubus moluccanus</i> , Linn.	Indian Blackberry.
"	" <i>lasiocarpus</i> , Smith.	Mahableshwar Raspberry.
"	<i>Fragaria vesca</i> , Linn.	Strawberry.
"	<i>Rosa multiflora</i> , Thunb.	Clustering Rose.
"	<i>Cotoneaster frigidus</i> , Wall.	Above Rambag, Matheran. Found by J. C. Anderson. Identified by G. M. Woodrow.
34. Crassulacæ (The Stonecrop Order.)	<i>Bryophyllum calycinum</i> , Salisb.	Pánphue, Gháipát. Matheran. Common at Mahableshwar.
"	<i>Kalanchoe brasiliensis</i> , Camb.	Panchgani.
34a. Droseraceæ (The Sundew Order.)	<i>Drosera indica</i> , Linn.	Indian Sundew. The glandular-pubescent, linear leaves seize insects and suck their juices. (Woodrow). Koyna Valley. (Cooke).
34b. Haloragacæ (Mare's-tail Order.)	<i>Myriophyllum intermedium</i> , DC.	A water plant with floating stems and pectinate leaves. (Woodrow). The Lake, Mahableshwar. (Cooke).

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
35. Rhizophoraceæ (The Mangrove Order.)	<i>Carallia integerrima</i> , DC.	Phansi, Wild Jack-tree.
36. Combretaceæ (The Myrobolan Order.)	<i>Terminalia belerica</i> , Roxb.	Beheda, Vehela.
"	" <i>Chebula</i> , ^o Retz. ...	Hirda, Myrobolan tree.
"	<i>Terminalia Arjuna</i> , Bedd.	Arjun.
"	" <i>tomentosa</i> , Bedd.	Ain.
"	<i>Calycopteris floribunda</i> Lamk.	Bag-yel, Ukashi, Bagoli.
"	<i>Anogeissus latifolia</i> Wall.	Dhanda, Matheran Ghât.
"	<i>Combretum ovalifolium</i> , Roxb.	Madh-vel, Shendri.
37. Myrtaceæ (The Myrtle Order.)	<i>Eugenia caryophyllæa</i> , Wight.	Near Fountain Hotel and Carnac Point.
"	" <i>Heyneana</i> , Wall. ...	Koyna Valley.
"	" <i>Jambolana</i> , Lamk. ...	Jambul, Jambul tree. Common.
"	<i>Eucalyptus obliqua</i> , L'Hérit.	Stringy Bark, Introduced from Australia. Panchgani.
"	<i>Careya arborea</i> , Roxb. ...	Kumbha.
38. Melastomaceæ	<i>Memecylon edule</i> , Roxb., Herb. Co.	Anjan, Ironwood tree. Common everywhere.
39. Lythraceæ (The Loose-strife Order.)	<i>Ammania floribunda</i> , Clarke.	Mahableshwar. (Wood-row).
"	" <i>baccifera</i> , Linn. ...	Agiya, Mahableshwar Heather, L'hobi's Water-fall.
"	<i>Woodfordia floribunda</i> , Salisb.	Dhayati.
"	<i>Lagerstræmia parviflora</i> , Roxb.	Naneh, Nanya, Lendia, Benteak tree.
"	" <i>lanceolata</i> , Wall. ...	Bhondka, Bhondga, Fruits in the cold weather.
"	" <i>Flos-Reginæ</i> , Retz.	Tâman.
"	" <i>floribunda</i> , Jack. var. <i>cuspidata</i> , Wall.	Kachan, Redlands, Matheran.
40. Onagraceæ (The Evening Primrose Order.)	<i>Oenothera rosea</i> ...	Mahableshwar, inside the well in Reay Garden; probably not indigenous. "It has run wild in the North-West Himalaya and in the Nilghiris" (Hooker, vol. II, p. 582).
41. Samydaceæ	<i>Casearia graveolens</i> , Dals.	Bokhâd.
"	" <i>esculenta</i> , Roxb.	Mori.

* "The Myrobolan tree is found *** in special abundance in the Mahableshwar forests, *** The fruit, the Chebulic Myrobolan of commerce, is about the size of a damson though more pointed at one end, of a deep green colour and contains a hard seed. When dry it becomes * * very hard and shrivelled. It is not edible in its natural state; but when mixed with the *Beheda* and *Apla*, the powder is taken as a stomachic and mild aperient. The fruit is much valued in tanning and dyeing. * * It is also used * * in making an ink." (Dr. W. McCouaghy, "Gazetteer," Vol. XIX, Appendix B, Note).

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
42. Cucurbitaceæ (The Gourd Order.)	<i>Trichosanthes palmata</i> , <i>Roxb.</i>	Kaundal. A large climber. Readily identified by its clusters of spherical, scarlet, orange-streaked fruit, nearly 2 inches in diameter, and by its large, broadly-lobed leaves.
"	<i>Cucumis trigonus</i> , <i>Roxb.</i>	Kat-yel. Karit.
"	<i>Mukia leiosperma</i> , <i>Thwaites.</i>	Khaskhas. Matheran Bryony.
"	<i>Zehneria Baueriana</i> , <i>Endl.</i>	Warali. Mahableshwar Bryony.
"	" <i>umbellata</i> , <i>Thwaites.</i>	Gomati.
"	<i>Melothria odorata</i> , <i>H. F. & T.</i>	Handwritten note: <i>Handwritten note: I don't know it M?</i>
43. Begoniaceæ	<i>Begonia crenata</i> , <i>Dryand.</i>	Berki, Motyen.
"	" <i>malabarica</i> , <i>Lamk.</i>	
44. Ficoidæ (The Fig Marigold Order.)	<i>Mollugo hirta</i> , <i>Thunb.</i>	Kothak.
45. Umbelliferae (The Parsley and Hemlock Order.)	<i>Hydrocotyle rotundifolia</i> , <i>Roxb.</i>	
"	" <i>asiatica</i> , [*] <i>Lin.</i>	Karivana, Khopri. Sans. Bhrāhmi.
"	<i>Pimpinella monoica</i> , <i>Dalz.</i>	Bhālgā.
"	" <i>tomentosa</i> , <i>Dalz.</i>	Mahableshwar. (Wood-row.)
"	<i>Peucedanum grande</i> , <i>Clarke.</i>	Bāphli.
"	<i>Heracleum concanense</i> , <i>Dalz.</i>	Pandi, Pinda. Near Elphinstone Point.
46. Rubiaceæ (The Madder Order.)	<i>Anthocephalus Cadamba</i> , <i>Miq.</i>	Niv. Kadamb. Mahableshwar. (Symonds.)
"	<i>Adina cordifolia</i> , <i>Hook. f.</i>	Hed.
"	<i>Stephegyne parvifolia</i> , <i>Korth.</i>	Kalam, Niv. A fine tree, something like an Alder.
"	<i>Hymenodictyon excelsum</i> , <i>Wall.</i>	Bhorsal. Porcupine Point.
"	<i>Cinchona succirubra</i> , <i>Pavon.</i>	Planted in the woods at Lingmala.
"	<i>Wendlandia Notoniana</i> , <i>Wall.</i>	Frequent below the Forest Bungalow, Yenna Falls.
"	<i>Oldenlandia corymbosa</i> , <i>Lin.</i>	A small, much-branched herb, with slender, pubescent stem and branches, linear, sessile leaves and small, white flowers. Very common at Mahableshwar, on the sides of paths, in October (Cooke.)

* An infusion of the leaves of this plant was used by the late Dr. Bhanu Daji in his treatment of leprosy. The juice of the leaves is sometimes prescribed in native medicines for epilepsy; and is also popularly believed to be a cure for stammering, and to stimulate the intellectual faculties, if taken daily.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
46. Rubiaceae (The Mad- der Order.)—Contd.	<i>Anotia lancifolia</i> , Dalz...	Mahableshwar. (Wood- row.)
"	" <i>Rheedii</i> , W. & A...	Matheran. (Woodrow.)
"	" <i>carnosa</i> , Dalz,	A small plant with pink flowers. The leaves smell like carrion, when crushed.
"	" <i>Ritchiei</i> , Hook. f.	Tilia. Flowers in Octo- ber. Small, pale, purple flowers.
"	<i>Mussaenda frondosa</i> , Linn.	Bhutkes, Sarwad. Near Simpson's Lake, Mathe- ran.
"	<i>Randia dumetorum</i> ,† Lamk.	Gela. The pounded bark is used for poisoning fish.
"	" <i>rugulosa</i> , Thun. ...	Suran. Chowk Plateau.
"	<i>Canthium didymum</i> , Roxb.	Sajeri.
"	" <i>umbellatum</i> , Wight.	Tupa. Flowers in Novem- ber. Fruits in January.
"	" <i>angustifolium</i> , Roxb.	Chap-yel.
"	<i>Vangueria spinosa</i> , Roxb.	Alu. Indian Medlar.
"	<i>Ixora nigricans</i> , Br.	Rakura, Kalkura.
"	<i>Savetta indica</i> , Linn.	Phaphti, Papti. Matheran Coffee.
"	" <i>hispidula</i> , W. & A.	
"	<i>Coffea arabica</i> , Linn.	Coffee. Cultivated at Panchgani.
"	<i>Psychotria truncata</i> , Wall.	Rare. Near Carnao Point.
"	<i>Hamiltonia suaveolens</i> , Roxb.	Girao. Warra Ghat Road and Falkland Point.
"	<i>Rubia cordifolia</i> , Linn. ...	Itari. Indian Madder. The roots furnish the dye called "manjit." (Balfour's "Class Book of Botany.")
47. Compositae. (The Thistle & Dande- lion Order.)	<i>Centratherum phyllole- num</i> , Benth.	
"	" <i>tenue</i> , Clarke.	
"	<i>Lamprachneum micro- cephalum</i> , Benth.	Bramhadandi.
"	<i>Adenoon indicum</i> , Dalz...	Kusamb, Mothi Sonki, Kardai.
"	<i>Vernonia cinerea</i> , Less...	Mothi Sadori, Sahadevi.
"	" <i>divergens</i> , Benth.	Bondar. At Yenna Falls and Garbat Point.
"	<i>Elephantopus scaber</i> Linn.	Charlotte Lake, Matheran.
"	<i>Adenostemma viscosum</i> , Forst.	Girao, Jangli jira, Lapoti.

* This showy shrub is not very common at Matheran. It can be readily identified by its conspicuous, white, calycine leaves, and its small, golden-yellow flowers.

† The *Gela* is very common on the hills. It is variable in size, sometimes a small tree, generally a shrub, with numerous stiff branches, armed with spines, and large, fragrant white flowers, slightly tinged with greenish-yellow, which turn yellow before they fade.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.	
47. Compositæ. (The Thistle & Dandelion Order.)—	<i>Ageratum conyzoides</i> , Linn.	Ganera.	7
	<i>Dichrocephala latifolia</i> , DC.	Bhamburdi.	7
	<i>Contd.</i>		
"	<i>Cyathocline lyrata</i> , Cass.	Gangotri.	
"	<i>Conyza stricta</i> , Willd.	Gondali. Common.	8
"	<i>Blumea glomerata</i> , DC.	Bhamburdi. The leaves have a strong aromatic smell.	7
"	" <i>Malcolmii</i> , Hook f.		
"	<i>Anaphalis oblonga</i> , DC.		
"	<i>Gnaphalium luteo-album</i> , Linn.		
"	<i>Viccia cernua</i> , Dalz.		
"	<i>Palicourea Wightiana</i> , Clarke.	Everywhere at Matheran. (Macpherson.)	
"	<i>Wedelia urticifolia</i> , DC.	Sonki.	8
"	<i>Spilanthes Acmella</i> , Linn.	Acharbondi.	
"	<i>Bidens pilosa</i> , Linn.		
"	<i>Tridax procumbens</i> , Linn.		
"	<i>Artemisia parviflora</i> , Roxb.	Dauni, Bhāngi.	8
"	<i>Gynura nitida</i> , DC.	Dāhn. Sowthistle. Flowers in October.	7
"	<i>Notonia grandiflora</i> , DC.	Cabbage tree. Khandala Ghāt, near Wai.	
"	<i>Senecio Dalzellii</i> , Clarke.		
"	" <i>Lawii</i> , Clarke.	Common on a hill above Khandala. (Cooke.)	
"	" <i>Grahami</i> , Hook. f.	Sonki.	7
"	" <i>belgaumensis</i> , Clarke	Very like <i>S. Grahami</i> , but has no pappus. (Cooke.)	
"	<i>Calendula officinalis</i> , Linn.	Makmal. Marigold. Kartraj and Wai Ghāts.	7
"	<i>Tricholepis glaberrima</i> , DC.	Motha Bār. Bār.	7
"	<i>Lactuca Heyneana</i> , DC.	Wild Lettuce.	
48. Campanulaceæ (The Hare-bell Order.)	<i>Lobelia trigona</i> , Roxb.		
"	" <i>trialata</i> , Ham.	In a drain, near the Club, Mahableshwar. (Woodrow.)	
"	" <i>nicotianefolia</i> , Heyne.	Dhāwal, Devnal. A tall, erect plant, with hollow stems, and large, light-green, lanceolate leaves, and a dense, terminal raceme of white flowers.	8
"	<i>Cephalostigma flexuosum</i> , H. f. & T.		
"	<i>Wahlenbergia gracilis</i> , DC.		



Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
SUB-CLASS 3.—COROLLIFLORE or GAMOPETALÆ.		
49. Plumbaginaceæ	<i>Plumbago zeylanica</i> , Linn.	Chitrak, Mahableshwar.
50. Primulaceæ (The Primrose Order.)	<i>Lysimachia obovata</i> , Ham.	Found by Dr. Lisboa in the Chinaman's Garden at Mahableshwar and described in a paper on the climate of Mahableshwar read before the Grant College Medical Society in 1886.
"	<i>Anagallis arvensis</i> , Linn...	Pimpernel. Near Panchgani, (Macpherson.)
51. Myrsinaceæ	<i>Mesa indica</i> , Wall	Atki, Atak.
"	<i>Embelia ribes</i> , Burm. ...	Waiwarang.
"	" <i>robusta</i> , Roxb., var.	Ambuti, Wawri.
"	" <i>ferruginea</i> , Wall...	
52. Sapotaceæ (The Sapodilla Order.)	<i>Sideroxylon tomentosum</i> , Roxb.	Kanta-Kumbal, Common at Matheran.
"	<i>Bassia latifolia</i> , Roxb.....	Mavra, Mohova, Mowrah Tree. Matheran Ghât.
"	<i>Mimusops Elengi</i> , Linn...	Bokul, Bakuli. Below Simpson Lake, Matheran.
53. Ebenaceæ (The Ebony Order.)	<i>Diospyros montana</i> , Roxb.	Goinda, Lohâri.
"	" <i>assimilis</i> , Bedd.	Malia, Indian Ebony.
54. Styracaceæ	<i>Symplocos Beddomei</i> , Clarke.	Kaola, Lodhra, Mahableshwar, common.
55. Oleaceæ (The Olive Order.)	<i>Jasminum arborescens</i> , Roxb., var. <i>latifolia</i> .	Kusar. Wild Jasmine.
"	<i>Olea dioica</i> , Roxb	Pâr Jâmb. Wild Olive.
"	<i>Ligustrum neilgherrense</i> , Wight.	Lokhandi, Mersinga. Mahableshwar Privet, Not found at Matheran.
56. Apocynaceæ (The Dogbane Order.)	<i>Carissa Carandas</i> , Linn.	Karvand, Corinda.
"	<i>Rauwolfia densiflora</i> , Benth., Herb. Co.	Rare. At Lingmala. (Cooke.)
"	<i>Alstonia scholaris</i> , Brown.	Garbat Ridge, (W.S. Birdwood.)
"	<i>Holarrhena antidysenterica</i> , Wall.	Kuda, Pândhra Kuda. The seed is called Indrajava and is used as a vermifuge and febrifuge.
"	<i>Tabernaemontana dichotoma</i> , Roxb.	Taital.
"	" <i>crispa</i> , Roxb.	Kuda. Fruit well formed in November.
"	<i>Wrightia tinctoria</i> , Br. ...	Kâla Kuda.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
56. Apocynaceæ (The Dogbane Order.) <i>Contd.</i>	<i>Anodendron paniculatum</i> , A. DC.	Lámtáni. Dr. MacDon- ald's "Seed Travel- ler." See the Society's Journal, vol. I, p. 237.
57. Asclepiadaceæ (The Milkweed Order.)	<i>Calotropis gigantea</i> , Br...	Rui.
"	<i>Gymnema sylvestre</i> , ^a Br...	Kaoli, Pitáni, Dodi, Dudh- roli, Sirdoli.
"	<i>Dregea volubilis</i> , Benth., Herb. Co.	Hirandodi, Ambri.
"	<i>ib. var. angustifolia</i>	Dudhi, Rotunda Ghât and Babington Point. A "starved form." (Hooker.)
"	<i>Dischidia benghalensis</i> , Coleb.	
"	<i>Hoya retusa</i> , Dals	Dhákti Ambri. Golden Fringe.
"	" <i>Wightii</i> , Hook f. ...	Ambri, Dudh-yel. Wax plant.
"	<i>Leptadenia reticulata</i> , Wight & Arn.	Khár-Khodi.
"	<i>Ceropegia Lawii</i> , Hook f..	Near the Bund, Maha- bleshwar. Flowers in July. (Nairne.)
58. Loganiaceæ (The Strychnia Order.)	<i>Buddleia asiatica</i> , Lour., Herb. Co.	Very rare. Lingmala and FitzGerald Ghât. (Cooke.)
"	<i>Strychnos colubrina</i> , Linn.	Tarali, Strychnina Creep- er. Near Simpson Lake, Matheran. Plen- tiful below cliffs to the south of Chowk Plateau.
"	" <i>potatorum</i> , Linn. f.	Niwali, Nirmali. Clear- ing nut. Near Hart Point, Matheran.
59. Gentianaceæ (The Gentian Order.)	<i>Exacum bicolor</i> , Roeb. ...	Udi-chirayet.
"	" <i>Lawii</i> , Clarke ...	Jatáli, Gaulan, Maha- bleshwar Gentian. Very common amongst grass in October; dies very soon after the end of the rains (Cooke.) The whole plant turns red when dried.
"	" <i>petiolare</i> , Griseb.	Matheran.

* The leaves of this climber have the property, when chewed, of neutralising for a time the taste of saccharine substances. It may be identified by its slender, green branches and numerous, dense umbels of yellowish-green flowers, rather than by its most common vernacular name, "Kaoli," which is applied to many of the twining Asclepiads. (Cooke.)

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
59. <i>Gentianaceæ</i> (The Gentian Order.)— <i>Contd.</i>	<i>Canscora diffusa</i> , Br.....	Galphugi, Shinta, Mahāśrā-chā gavāt. Common along shady roadsides, both at Matheran and Mahāleshwar. (Cooke.) Grows to 3 or 4 ft. high in the Rambag, and when dry, after seeding, the whole plant is of a reddish colour.
"	<i>Swertia decussata</i> , Nimmo	Kauri. Flowers in November in grassy places. Used as a febrifuge. (Cooke.)
"	<i>Limnanthemum cristatum</i> , Griseb.	Water Snow-flake. Found in pools, Panchgani. (Fairbank.)
60. <i>Boraginæ</i> (The Borage Order.)	<i>Cordia myxa</i> , Linn	Bhokar. Rambag, Matheran.
"	<i>Ehretia laevis</i> , Roxb.	Bhokar, Dātrang. Foot of Matheran Ghāt.
"	<i>Trichodesma zeylanicum</i> , Br.	Matheran.
"	<i>Paracaryum celestinum</i> , Benth.	Nechurdi, Mahāleshwar "Forget-me-not." Common everywhere.
"	" <i>malabaricum</i> , Clarke.	On the Bund, Mahāleshwar. Distinguished by its large, dark, metallic-blue flowers.
"	" <i>Lambertianum</i> , Clarke.	FitzGerald Ghāt. Distinguished by its smooth nutlets, which are not reflexed or barbed, as in <i>P. celestinum</i> .
61. <i>Convolvulææ</i> (The Convolvulus Order.)	<i>Argyrea speciosa</i> , Sweet.	Samudra-shoka.
"	" <i>sericea</i> , Dalt. ...	Gavel.
"	" <i>malabarica</i> , Choisy.	Bond-vel. FitzGerald Ghāt.
"	<i>Lettsonia elliptica</i> , Wight.	Galdar, Sāmbhar-yel.
"	" <i>setosa</i> , Roxb...	
"	<i>Ipomæa dissecta</i> , Willd....	
"	<i>Porana malabarica</i> , Clarke.	Bhanri. Flowers in October and November in many parts of Mahāleshwar, and along the Garbet Road, Matheran. Flowers small, funnel-shaped, pure white. "The dry scarious calyx is often seen on the withered plants in the hot season" (Cooke.)

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
62. Solanaceæ (The Potato Order.)	<i>Solanum nigrum</i> , Linn. ...	Kāmuni. Common in gardens below the bazaar, and below the lake, Mahableshwar. (Cooke.)
"	" <i>denticulatum</i> , Blume.	Karad Kāngoni.
"	" <i>giganteum</i> , Jacq.	Kutri.
"	" <i>indicum</i> , Linn.	Chiturti, Bhui-vāngi.
"	<i>Nicandra physaloides</i> , Gertn.	Karraj Ghāt. Mr. Macpherson has found it also in the Koyna Valley, between Sidney and Elphinstone Points.
"	<i>Datura fastuosa</i> , Linn., var. <i>alba</i> .	Dhotra.
"	<i>Brugmansia candida</i>	Motha Dhotra. The Spanish "Dama de Noche." It has been planted on the FitzGerald Ghāt and other roads and grows freely. Readily identified by its long drooping, tubular, white flowers, which smell sweetly at nightfall; hence the Spanish name "Lady of the Night."
63. Scrophularinæ (The Figwort Order.)	<i>Celsia coromandeliana</i> , Vahl.	Kutki. On the Wai Ghāt. (Macpherson.)
"	<i>Limnophila heterophylla</i> , Benth.	A marsh plant, with whorled, pinnatifid leaves and solitary, sessile flowers. (Woodrow.)
"	" <i>racemosa</i> , Benth.	Mahaka.
"	" <i>gratioloides</i> , Br.	Turti.
"	<i>Herpestis Monniera</i> , H. B. & K.	Nir-brambi, Bani. Flowers in April and May.
"	<i>Vandellia crustacea</i> , Benth.	Small plant with much-branched stem and minute purple flowers. (Woodrow.) Common at Matheran in damp places. (Macpherson.)
"	<i>Olysanthes hyssopioides</i> , Benth.	Mahableshwar and Matheran. (Woodrow.)
"	<i>Bonnaya veronicaefolia</i> , Spreng.	Shewā.
"	<i>Buchnera hispida</i> , Ham.	Koyna Valley. (Cooke.)

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
63. Scrophulariaceæ (The Figwort Order.)— <i>Contd.</i>	<i>Striga orobanchioides</i> , <i>Benth.</i>	Támbdi Karicha gavat.
"	<i>Ramphicarpa longiflora</i> , <i>Benth.</i>	Matheran.
"	<i>Centranthera hispida</i> , <i>Br.</i>	Matheran.
"	<i>Sopubia delphinifolia</i> , <i>G. Don.</i>	Dudhali. Louisa Point. Flowers in October.
"	<i>Pedicularis zeylanica</i> , <i>Benth.</i>	
64. Lentibulariaceæ (The Bladderwort Order.)	<i>Utricularia albo-cerulea</i> , <i>Dalz.</i>	Kájucha-ghás. Grows in patches in wet grass.
"	" <i>cerulea</i> , <i>Linn.</i> ..	Bladder-wort. In wet places. (Woodrow.)
65. Gesneraceæ (The Gesnera Order.)	<i>Æschynanthus Perrottetii</i> , <i>A. DC.</i>	On the banks of the Koyna. (Cookeg.)
66. Bignoniaceæ (The Trumpet Flower Order.)	<i>Heterophragma Roxburghii</i> , <i>DC.</i>	Wáras. Near Chowk-plateau, Matheran.
	" <i>adenophyllum</i> , <i>Seem.</i>	Pádel. Near the Chauki, Matheran.
67. Acanthaceæ (The Acanthus Order.)	<i>Thunbergia fragrans</i> , <i>Roxb.</i>	Eri-yel. Pauchgani.
"	" <i>mysorensis</i> , <i>T. Anders.</i>	A handsome creeper, with toothed, 3-nerved leaves and showy, yellow and maroon flowers. In gardens.
"	<i>Hygrophila Serpyllum</i> , <i>T. Anders.</i>	Rán-tewan.
"	" <i>spinosa</i> , <i>T. Anders.</i>	Matheran Ghât. (Macpherson.)
"	<i>Dædalacanthus purpurascens</i> , <i>T. Anders.</i>	Matheran.
"	<i>Hemigraphis latebrosa</i> , <i>Nees.</i>	Koyna Valley. (Macpherson.)
"	<i>Phaiopsis parviflora</i> , <i>Willd.</i>	
"	<i>Strobilanthes asperimus</i> , <i>Nees.</i>	Kárví. Moni Karvo. Wattle. Flowers septennially.
"	" <i>Heyneanus</i> , <i>Nees.</i>	Ankra, Itari.
"	" <i>ixiocephalus</i> , <i>Benth.</i>	Kárva, Dármori. Flowers septennially. It flowered freely everywhere at Mahableshwar in November, 1896.

* This strange-looking little plant may be readily identified by its dark, reddish-purple stem and branches, its scale-like leaves, and its terminal spikes of pink flowers, which have a white spot at the base of each division of the corolla. It grows on rocks, and is sometimes parasitical on the roots of other plants. It flowers in October and November.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
67. Acanthaceae (The Acanthus Order.)— Contd.	<i>Strobilanthes serotensis</i> , Dals.	"Corolla symmetric, . . . pale below, a beautiful blue upwards. . . . Appears to be the most beautiful species of the genus." (Hooker, vol. IV, p. 445.)
"	" <i>callosus</i> , Nees.	Below Chowk Point.
"	" <i>asper</i> , Wight.	Meni Karvo, Chit Karo. Matheran, near Little Chowk Point. Flowers in October. Bracts shining white; sometimes rosy at tips.
"	" <i>perfoliatus</i> , T. Anders.	Waiti. Very common at Matheran. It flowers triennially; flowers pale blue. The spikes when dry are highly aromatic.
"	<i>Calacanthus Dalzelliana</i> , T. Anders.	Pandhra Karva. Flowers large, purple. Under wet rocks below the Chauki, Matheran. (Cooke).
"	<i>Blapharia asperima</i> , Nees.	Dikna. Flowers bright blue.
"	<i>Haplauthus verticillaris</i> , Nees.	Kala Kirat, Kala Ankra.
"	<i>Barleria Prionitis</i> , Linn.	Pivla Itari. Common at Matheran. Flowers yellow.
"	" <i>Gibsoni</i> , Dals.	Gura. Matheran Ghat. Tubes of flowers white; limb pale lilac.
"	" <i>grandiflora</i> , Dals.	Safed Itari. Matheran. Flowers large, white.
"	" <i>courtallica</i> , Nees.	Itari.
"	" <i>strigosa</i> , Willd., var. <i>terminalis</i> .	Koranti, Kali Itari. Flowers blue, the tube of the corolla much paler than the limb. Stigma purple. Fitzgerald Ghat and Hart Point.
"	<i>Asystasia violacea</i> , Dals.	Akra. Very common at Mahableshwar in October.
"	<i>Lepidagathis cuspidata</i> , Nees.	
"	<i>Rungia parviflora</i> , Nees.	
"	<i>Dicliptera zeylanica</i> , Nees.	
"	<i>Justicia Betonica</i> , Linn.	Matheran. (Carstensen.)
"	" <i>trinervia</i> , Vahl.	Sata, Pandhra Sata.
"	" <i>procumbens</i> , Lam.	Tharambal.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
67. Acanthaceæ (The Acanthus Order.)— Contd.	<i>Adhatoda vasica</i> , Nees ...	Adulsa. Used for hedges in the Ghât districts. (Nairne.)
"	<i>Rhinacanthus communis</i> , Nees.	Gajkarni. "Its pretty, white flowers, with the upper, narrow lobe extended, is seen everywhere during the cold season." (Woodrow.)
"	<i>Ecbolium Linneanum</i> , Kurz.	Dhákta-adulsa, Kala Suta, Wálio, Goda.
68. Verbenacæ (The Vervain Order.)	<i>Lantana Camara</i> , Linn ...	Ghaveri. In hedges, Panchgani. The plant "has a strong smell of black currants." (Nairne.)
"	<i>Priva leptostachya</i> , Juss.	Below Kate's Point. (Macpherson). I have found it with blue flowers on Louisa Point. The flowers are ordinarily white.
"	<i>Callicarpa lanata</i> , Linn ...	Yesur.
"	<i>Tectona grandis</i> , Linn ...	Ság, Ságwán. Teak tree.
"	<i>Premna coriacea</i> , Clarke.	
"	" <i>purpurascens</i> , Thwaites.	Chámbar-yel.
"	<i>Gmelina arborea</i> , Linn ...	Shewan. The pale yellow, close-grained wood of this tree is highly esteemed for planking, furniture, the panels of doors, &c. (Brandis.)
"	<i>Vitex Negundo</i> , Linn., Herb. Co.	Katri, Nigud, Nigadi, Sans. Nirgundi. In native medicine the bruised leaves are applied to the temples, as a cure for headache.
"	<i>ib. var. incisa</i> , Lamk	(Cooke.) In <i>var. incisa</i> , the leaflets are crenate and serrate, and are not nearly so white underneath as in the more common plant.
"	<i>Vitex leucoxydon</i> , Linn...	Keyna Valley, (Cooke.)
"	<i>Clerodendron serratum</i> , Spreng., Herb. Co.	Borungi, Borsangi, Bhá-rang. Near the dharmasala, between Mahableshwar and Panchgani.
69. Labiatæ. (The Labiate or Dead-Nettle Order.)	<i>Plectranthus Wightii</i> , Benth.	Lingmala and elsewhere.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
69. Labiate (The Labiate or Dead-Nettle Order.)—Contd.	<i>Coleus parviflorus</i> , Benth.	Khāpri. Near Elphinstone Point, Mahableshwar.
"	<i>Lavandula Gibsoni</i> , Grah.	Indian Lavender. On the Wai Ghāt.
"	<i>Pogostemon paniculatus</i> , Benth.	Pāngli. The stem and leaves of this plant are used in the Ratnagiri District as a cure for snake-bite.
"	" <i>parviflorus</i> , Benth.	
"	<i>Dysophylla myosuroides</i> , Benth.	Shewal.
"	" <i>salicifolia</i> , Dals.	
"	" <i>stellata</i> , Benth.	Marvā.
"	" <i>gracilis</i> , [*] Dals.	
"	<i>Colebrookia oppositifolia</i> , Smith.	Bhāman.
"	<i>Micromeria capitellata</i> , Benth.	Karwat. "Very aromatic." (Hooker.)
"	<i>Salvia plebeia</i> , Br.	Biramhola, Sage.
"	<i>Scutellaria discolor</i> , Coleb.	
"	<i>Anisomeles Heyneana</i> , Benth.	Chaudhāra. Common everywhere.
"	" <i>ovata</i> , Br.	Gopali.
"	" <i>malabarica</i> , Br.	On the Katraj Ghāt. Flowers in November. Readily identified by the snow-white, appressed wool which clothes its stem and branches, by its large, thick leaves, and its dense whorls of pale, purple flowers.
"	<i>Leucas stelligera</i> , Wall.	Guma, Borambi, Mātanāli.
"	" <i>ciliata</i> , Benth.	Borambi, Mahableshwar. Dead-Nettle. Not so common as <i>L. stelligera</i> . May be identified by the short, dense, yellowish brown hairs on the helmet-shaped upper lip of the corolla. (Cooke.)
"	<i>Teucrium tomentosum</i> , Heyne.	

* *Dysophylla gracilis* is probably only a tall form of *D. stellata*. (Hooker, vol. IV, p. 641.) The latter plant can be readily known, when in flower in October, by its narrow, linear, whorled leaves, and its slender spikes of minute, closely-packed, dark purple flowers. It grows in patches on the roadside near Sydney Point, Mahableshwar.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
SUB-CLASS 4—MONOCHLAMYDEÆ or APETALÆ or INCOMPLETE.		
70. Plantaginæ (The Rib-grass Order.)	<i>Plantago major</i> , Linn.	English Plantain. On the Yenna river. (Cooke.)
71. Amarantaceæ (The Amaranth Order.)	<i>Celosia argentea</i> , Linn.	Kárdú, Quail grass.
"	<i>Achyranthes aspera</i> , Linn.	Sarátá, Burr plant.
"	<i>Alternanthera sessilis</i> , Br.	
72. Chenopodiaceæ (The Goose-foot Order.)	<i>Chenopodium ambrosioides</i> , Linn.	Sherní.
73. Polygonaceæ (The Buck-wheat Order.)	<i>Polygonum plebejum</i> , Br.	
"	var. <i>elegans</i> , glabrum, Willd.	Sheral. Near the lake, Mahableshtar.
"	" <i>barbatum</i> , Linn.	Dhákta Sheral.
"	" <i>flaccidum</i> , Meisn.	Mahableshtar. (Woodrow)
"	" <i>alatum</i> , Ham.	
"	" <i>chinense</i> , Linn.	Nárali, Paral. Indian Buck-wheat.
"	" <i>pedunculare</i> , Wall. var. <i>angustissima</i>	Mahableshtar. (Woodrow)
74. Piperaceæ (The Pepper Order.)	<i>Piper Hookeri</i> , Miq.	Rán Mirvel, Wild Pepper.
"	" <i>syvestre</i> , Lamk.	Dongri Mirchi.
"	<i>Peperomia portulacoides</i> , A. Dietr.	Mirvel.
75. Myristicæ (The Nutmeg Order.)	<i>Myristica attenuata</i> , Wall.	Bakht Rúrá, Matheran Nutmeg, Rambag.
76. Laurinæ (The Laurel Order.)	<i>Cryptocarya wightiana</i> , Thwaites.	Panchawa, Bobarsa.
"	<i>Beilschmiedia fagifolia</i> , Nees.	Matheran. (Cooke.)
"	<i>Dehaasia cuneata</i> , Blume.	Sirsa, Matheran.
"	<i>Cinnamomum Tamala</i> , Nees.	Maharuk, Below the cliffs to the west of Chowk Plateau. Fruit ripens in May.
"	<i>Machilus villosa</i> , Hook. f.	
"	" <i>macrantha</i> , Nees.	Gulumb. The petiole is generally twisted through an angle of 90°.
"	<i>Alseodaphne semicarpifolia</i> , Nees.	Bobarsa. In the Cemetery, Matheran.
"	<i>Actinodaphne Hookeri</i> , Meisn.	

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
76. Laurineæ (The Laurel Order.)— <i>Contd.</i>	<i>Litsea Cookii</i> , Fairb	Near the Carriage Stand, Arthur's Seat.
"	" <i>tomentosa</i> , Heyne.	Rotunda Ghât.
"	" <i>polyantha</i> , Juss ...	Kala Piss, Arthur's Seat and near Government House, Mahableshwar. The leaves smell of cinnamon when crushed.
"	" <i>Stocksii</i> , Hook. f. <i>Syn. Tetranchera lanceifolia</i> , Grah. <i>Cat., p. 174. Herb Co.</i>	Piss. Common. Identified by Nairne and Dymock as the <i>Actinodaphne lanceolata</i> of Dalzell.
"	" <i>Wightiana</i> , Wall.	Below Bombay Point, Mahableshwar. (Symonds.)
"	" <i>fuscata</i> , Thwaites.	
"	" <i>zeylanica</i> , C. & Fr., Ness.	
77. Thymelæaceæ (The Spurge Laurel Order.)	<i>Lasiosiphon eriocephalus</i> , Dene.	Rameta. Plentiful on both hills. The bark, which has a strong fibre, is used by the hill coolies for tying bundles of grass and wood.
78. Elæagnaceæ (The Oleaster Order.)	<i>Elæagnus latifolia</i> , [*] Linn.	Ambulgi.
79. Loranthaceæ (The Mistletoe Order.)	<i>Loranthus Wallichianus</i> , Schultz.	Bānda, Vānda.
"	" <i>obtusatus</i> , Wall....	
"	" <i>scurra</i> , Linn	
"	" <i>pulverulentus</i> , Wall.	Panchgani. (Nairne.)
"	" <i>cuneatus</i> , Heyne...	
"	" <i>elasticus</i> , Desrous.	
"	" <i>involueratus</i> , Roxb.	Bandguli.
"	" <i>lageniferus</i> , Wight.	Bandguli. Involucre 5-lobed, lurid purple, long tubular corolla, of light colour, anthers exerted.
"	" <i>loniceroides</i> , Linn.	
"	<i>Viscum ramosissimum</i> , Wall.	Mahableshwar. (Woodrow)
"	" <i>angulatum</i> , Heyne	Jalindar. Indian Mistletoe.
80. Santalaceæ (The Sandalwood Order.)	<i>Osyris arborea</i> , Wall	Lotah.

* This beautiful species is very variable in habit, taking the form of either a bush, a small tree, or a climber. (Hooker). At Matheran and Mahableshwar it is generally found as a large climber, and is readily identified by its oblong, elliptic leaves, which are silvery-white beneath.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
81. Balanophoreæ	<i>Balanophora indica</i> , Wall.	See Mrs. Hart's "Note on a supposed Root-Parasite found at Mahableshwar in October, 1885." (Journal, vol. I, p. 75.) Fairly plentiful in the wood above the Dhobi's Waterfall in November.
82. Euphorbiaceæ (The Spurgewort Order.)	<i>Euphorbia pycnostegia</i> , Boiss.	
"	" <i>zorniioides</i> , Boiss....	Matheran. (Woodrow.)
"	" <i>elegans</i> , Spreng.	The bracts are about half an inch long.
"	" <i>hypericifolia</i> , Linn.	Dudh Mogra.
"	" <i>nerifolia</i> , Linn. ...	Thor, Nigud. The Candelabrum tree.
"	" <i>fusiformis</i> , Ham...	Kirkind. Roots large, ten inches long. Sought after by monkeys. Leaves fleshy, radiant, reddish. The flowers appear in delicate pink cymes before the leaves. On the Golf Ground, Mahableshwar, and on the Ghât Plateau, Matheran.
"	<i>Euphorbia Rothiana</i> , Spreng.	Dudhi.
"	<i>Bridelia retusa</i> , Spreng ...	Hasāna, Asāna.
"	<i>Phyllanthus Emblica</i> , Linn.	Awal. Gooseberry tree.
"	" <i>maderaspatensis</i> , Linn.	Kanocha.
"	" <i>urinaria</i> , Linn.	Matheran. (Woodrow.)
"	<i>Glochidion lanceolatum</i> , Dalz.	Bhoma.
"	<i>Flüggea Leucopyrus</i> , Willd.	Pandharphali.
"	<i>Breynia patens</i> , Benth.....	
"	<i>Sauropus quadrangularis</i> , Muell.	Chickli.
"	<i>Ocrotia reticulatus</i> , Heyne.	Pandurrai, Pandhri.
"	" <i>Lawianus</i> , Nimmo.	Borambi, Bhorambi.
"	" <i>ramiflorus</i> , Grah....	Kavala, Parai.
"	<i>Blachia denudata</i> , Benth.	Shindola.

* The late Mr. W. E. Hart gave the following description, from memory, of the specimens collected by him. "My specimens approach the description of *B. indica* nearer than any of the others." (See Hooker, vol. V, pp. 237, 238.) "The root-stock was tuberous or warty. The peduncle-scales yellowish. *** They lay close on the peduncle, and *** were imbricate, but separated at the upper extremities. The heads were certainly globular and uni-sexual; reddish-brown in colour. The flowers were dioecious, white in colour. The stamens of the male flower united into a central column of conical shape. The peduncles were of all lengths, from 1 to 6 inches high, and decidedly thick for their length. The heads were of all sizes from marbles to hazel-nut balls."

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
82. Euphorbiaceæ (The Spurge-wort Order.)— <i>Contd.</i>	<i>Dimorphocalyx glabellus, Thwaites.</i>	Matheran. (Hay.)
"	<i>Mallotus Lawii, Muell ...</i>	Matheran. (Hay.)
"	" <i>philippinensis, Muell.</i>	Rohen, Asli. Capsules covered with a red, mealy powder, used as a red dye (Dalzell and Gibson). At Mount Abu, in October, this tree can be at once identified by this red powder, which seems to colour the whole tree.
"	<i>Macaranga Roxburghii, Wight.</i>	Chandāra. A very common tree at Matheran. Readily identified by its large, ovate, peltate leaves.
"	<i>Homonoia riparia, Lour ...</i>	In the bed of the ravine below the Dhobi's Waterfall. (Cooke.)
"	<i>Tragia involucrata, Linn...</i>	Kūlti. Sting-Nettle creeper.
83. Urticaceæ (The Nettle Order.)	<i>Trema orientalis, Blume...</i>	Gol, Ghol.
"	<i>Morus alba, Linn.</i>	Tuti, Situt, Shah-tut, i.e., "The King's Mulberry."
"	<i>Ficus bengalensis, Linn...</i>	Wad, Banyan tree.
"	" <i>tomentosa, Roxb. ...</i>	Karwat.
"	" <i>retusa, Linn.</i>	Nāndruk, Ranekuit.
"	" <i>Rumphii, Blume ...</i>	Pahir.
"	" <i>religiosa, Linn. var.</i>	Ashta, * Ashit.
"	" <i>infectoria, Roxb. ...</i>	Kel.
"	" <i>heterophylla, Linn.</i>	Karoti. The leaves are very rough and can be used as sand-paper.
"	" <i>asperrima, Roxb.</i>	
"	" <i>hispida, Linn.</i>	
"	" <i>palmata, Fors.</i>	This is the most common fig at Mahableshwar. (Cooke.)
"	" <i>glomerata, Roxb. ...</i>	Umbar. The Sycamore tree of the Bible.
"	<i>Artocarpus integrifolia, Linn.</i>	Phanas. Sans. PANASA. Jack-tree.
"	<i>Fleurys interrupta, Gaud.</i>	Khājoti.
"	<i>Girardinia heterophylla, Dene.</i>	Mothi Khājoti, Agiya, Agarra. Giant Sting-nettle.

* The Ashta is distinguished by the hill people from the Pipal of the plains (*Ficus religiosa*) of which it is perhaps a variety. The name "Ashta" has no connection, apparently, with the Sanskrit name of the Pipal, * Ashvatth."

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
83. Urticaceæ (The Nettle Order.)— <i>Contd.</i>	<i>Lecanthus Wightii</i> , Wedd.	
"	<i>Boehmeria platyphylla</i> , Don, var. <i>scabrella</i> , Wedd.	
"	<i>Debregeasia velutina</i> , Gaud.	Kapsi.
83a. Casuarinaceæ	<i>Casuarina equisetifolia</i> , Forst.	Cassowary tree, Beefwood. Extensively planted at Panchgani.
83b. Cupuliferæ (The Hazel and Oak Order.)	<i>Quercus Robur</i> , Linn.....	The Oak. There are some well-grown trees (raised from acorns brought by the late Dr. John Wilson, from Scotland,) at Sindola, Mahableshwar.
84. Salicineæ (The Willow Order.)	<i>Salix tetrasperma</i> , Roxb...	Walunj. Willow. Not found at Matheran.

Section (2)—*Gymnospermæ*.*

SUB-CLASS 5.—GYMNOSPERMÆ.

85. Gnetaceæ (The Jointed-Fir Order.)	<i>Gnetum scandens</i> , Roxb...	Wumbli. There are some fine plants of this grand climber in the Lonauli Woods.
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CLASS II.—MONOCOTYLEDONES or ENDOGENS.†

86. Hydrocharideæ (The Frog-bit Order.)	<i>Vallisneria spiralis</i> , Linn...	
"	<i>Blyxa echinosperma</i> , Hook. f.	A submerged, grass-like plant, but without the spiral flower-stalk characteristic of <i>Vallisneria spiralis</i> . The Lake, Mahableshwar. (Woodrow.)
87. Burmanniaceæ	<i>Burmannia celestis</i> , Don.	On the road to the Governor's Bund, Matheran.
88. Orchideæ (The Orchis Order.)	<i>Oberonia recurva</i> , Lindl...	On trees. (Fairbank.)
"	<i>Microstylis Rheedii</i> , Wight	Very like a <i>Plantago</i> .
"	<i>Dendrobium Macraei</i> , Lindl.	Koyna Valley.
"	" <i>microbulbon</i> , A. Rich.	Flowers in December. (Woodrow.) On Rameta bushes, Satara Road. (Fairbank.)

* In the section "*Gymnospermæ*" the ovules are naked, i.e., not enclosed in an ovary.

† In the seeds of Monocotyledones there is generally only one cotyledon. If there are two, they alternate with each other. The Monocotyledones are also angiosperms.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
88. Orchideæ (The Orchis Order.)— <i>Contd.</i>	<i>Dendrobium chlorops</i> , <i>Lindl.</i>	
"	" <i>barbatulum</i> , <i>Lindl.</i>	
"	" <i>ramosissimum</i> , <i>Wight</i> .	Koyna Valley. (Cooke.)
"	" <i>Pierardi</i> , <i>Roxb.</i>	Mahableshwar. (Cooke.)
"	" <i>crepidatum</i> , <i>Lindl.</i>	Bechn, Nangli.
"	<i>Cirrhopetalum fimbria-</i> <i>tum</i> , <i>Lindl.</i>	The "Umbrella orchis;" so named by Mrs. Jer-
"	<i>Eria braccata</i> , <i>Lindl.</i>	don.
"	" <i>Dalzellii</i> , <i>Lindl.</i>	On Jambul trees, Arthur's Seat, (Fairbank.)
"	" <i>mysorensis</i> , <i>Lindl.</i> ...	Koyna Valley. Flowers in July. (Woodrow.)
"	<i>Phajus albus</i> , <i>Lindl.</i>	Mahableshwar. Rare. (Fairbank.)
"	<i>Eulophia pratensis</i> , <i>Lindl.</i>	Ambarkhand.
"	<i>Ærides maculosum</i> , <i>Lindl.</i>	
"	" <i>crispum</i> , <i>Lindl.</i> ...	Rukhsing, Pansing. This handsome, sweet-scented orchid flowers abund-
"	<i>Saccolabium viridiflo-</i> <i>rum</i> , <i>Lindl.</i>	Below Babington Point. (Fairbank.)
"	<i>Habenaria grandiflora</i> , <i>Lindl.</i>	Mahableshwar. Common after the first fall of rain. Flowers with white, pectinate petals. The root is the Indian "Salep Misri" of the bazaars.
"	" <i>Susanna</i> , <i>Br...</i>	Wag-chaora, i.e., "Tiger's claws." The Giant orchid. Only one plant has been found (by Dr. Cooke) at Maha- bleshwar. It is "plenti- ful on the Bhoma Hill" at Khandala. (R. M. Dixon.)
"	" <i>plantaginea</i> , <i>Lindl.</i>	Matheran.
"	" <i>subpubens</i> , <i>A.</i> <i>Rich.</i>	Kalābi.
"	" <i>crassifolia</i> , <i>A.</i> <i>Rich.</i>	Mahableshwar, Common.
"	" <i>stenostachya</i> , <i>Benth.</i>	Matheran.
"	" <i>Wightii</i> , <i>Trimen.</i>	Matheran.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
89. Scitamineæ (The Ginger Order.)	<i>Curcuma Zedoaria</i> , <i>Rosc.</i>	Kachora, Kachola.
"	" <i>montana</i> , <i>Rosc.</i>	Rân-haldi. White turmeric.
"	<i>Hitchenia caulina</i> , <i>Baker.</i>	Châvar. Arrowroot.
"	<i>Hedychium coronarium</i> , <i>Koenig.</i>	Near Yenna stream, above Lingmala.
"	<i>Ib. var. flavum</i> , <i>Rosc.</i>	Sontuka, Dulab Champa. The fragrant, yellow flowers appear soon after the first fall of rain at Mahableshwar. (Lisboa.)
"	<i>Zinziber macrostachyum</i> , <i>Dalz.</i>	Sheri, Nisam. Wild ginger.
"	<i>Musa superba</i> , <i>Rosc.</i>	Ban-kei, Châwankel, Kawadar. Wild Plantain.
89a. Hæmodoraceæ (The Blood-root Order.)	<i>Ophiopogon intermedius</i> , <i>Don.</i>	A plant with long, linear, radical leaves and small, white, lily flowers, solitary or fascicled, on a scape. Mahableshwar. Rare. (Woodrow.)
90. Amaryllidææ (The Amaryllis Order.)	<i>Curculigo orchioidea</i> , <i>Gertn.</i>	Kajuri.
"	" <i>malabarica</i> , <i>Wight.</i>	Kali-musali.
"	<i>Crinum asiaticum</i> , <i>Linn.</i>	Panchgani. (Fairbank.)
"	" <i>latifolium</i> , <i>Linn.</i>	Mahableshwar Lily.
"	" <i>brachynema</i> , <i>Herb.</i>	Khandâlu, Dhâpa.
"	<i>Pancratium parvum</i> , <i>Dalz.</i>	Guital. An aloe, with fibre used for making ropes. Naturalised on the Eastern spurs of Mahableshwar. (Woodrow.)
"	<i>Agave vivipara</i> , <i>Linn.</i>	
91. Dioscoreaceæ (The Yam Order.)	<i>Dioscorea pentaphylla</i> , <i>Linn.</i>	Shend-vel, Shendon-vel.
"	" <i>sativa</i> , <i>Linn.</i>	Godri, Komphal. Yam. Commonly cultivated.
"	" <i>bulbifera</i> , <i>Linn.</i>	Kedu-karanda. With brown bulbs, in the axils of the leaves, which are eaten as a vegetable. (Lisboa.)
92. Liliaceæ (The Lily Order.)	<i>Smilax macrophylla</i> , <i>Rosc.</i>	Got-vel.
"	<i>Asparagus racemosus</i> , <i>Willd.</i>	Ashwal. Asparagus creeper.
"	<i>Chlorophytum brevica- pum</i> , <i>Dalz.</i>	Kula.
"	" <i>orchidastrum</i> , <i>Lindl.</i>	

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
92. Liliaceæ (The Lily Order.)— <i>Contd.</i>	<i>Scilla indica</i> , Baker.	A small lily, readily known by its racemes of greenish-purple flowers, which appear everywhere at Mahableshwar on the first fall of rain at the end of May and early in June.
"	<i>Iphigenia indica</i> , Kunth.	
93. Commelinaceæ (The Spider-wort Order.)	<i>Commelina nudiflora</i> , Linn.	Gandolgi.
"	<i>Aneilema Loureirei</i> , Hance.	Kāju. Spider-wort.
"	" <i>spiratum</i> , Br. ...	Mahableshwar (Woodrow)
"	" <i>pauciflorum</i> , Wight.	Matheran and Mahableshwar. (Woodrow.)
"	" <i>sinicum</i> , Lindl. ...	Mahableshwar. (Woodrow)
"	<i>Cyanotis Wightii</i> , Clarke.	
"	" <i>axillaris</i> , Roem. & Sch.	Dhakti Kāju.
94. Palmæ (Palms.) ...	<i>Caryota urens</i> , Linn.	Bherli-mád. Fish-tail Palm. The long, trailing, fruit-racemes of this palm are likened by the Hill people to the flowing locks of the long-haired Bheravs, attendants of Shiv. Hence the name "Bherli mád."
95. Aroidæ (The Arum Order.)	<i>Cryptocoryne Roxburghii</i> , Schott.	
"	<i>Ariscema Murrayi</i> , Hook.	Sápacha kanda, i.e., "Snakeroot." Cobra Lily. At Mahableshwar, where this beautiful Arum appears everywhere on the first approach of the monsoon, it has a creamy, white spathe, tinged with deep purple or pale green. Plants taken to Poona increase in size and show only a green spathe.
"	<i>Amorphophallus campanulatus</i> , Roxb.	Suran. Common.
"	<i>Synantherias sylvatica</i> , Schott.	
"	<i>Thomsonia nepalensis</i> , Wall.	Shevali.
	<i>syn. Pythonium Wallichianum</i> , Schott	

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
95. Aroideæ (The Arum Order.)—Contd.	<i>Remusatia vivipara</i> , Schott.	Rokh-ālu, Wild Caladium.
96. Lemnaceæ (The Duck-weed Order.)	<i>Lemna trisulca</i> , Linn.....	Duck-weed.
"	" <i>polyrrhiza</i> , Linn.....	Common in tanks. (Woodrow.)
"	<i>Wolffia arrhiza</i> , Wimm. ...	Gondali.
97. Eriocaulæ (The Pipewort Order.)	<i>Eriocaulon setaceum</i> , Linn	
98. Cyperaceæ (The Sedge Order.)	<i>Pycurus capillaris</i> , Nees....	Mahableshwar. (Woodrow.)
"	<i>Cyperus difformis</i> , Linn....	Matheran. (Woodrow.)
"	" <i>Iris</i> , Linn	Matheran. (Woodrow.)
"	" <i>tuberosus</i> , Retz.	Matheran. (Woodrow.)
"	<i>Fimbristylis dichotoma</i> , Vahl.	
"	" <i>estivalis</i> , Vahl.	
"	<i>Scleria biflora</i> , Roxb.	
"	" <i>Stockiana</i> , Boeck.	
"	<i>Carex indica</i> , Linn	Lavicha gavat. Rush.
99. Gramineæ (Grasses.)	<i>Paspalum scrobiculatum</i> , Linn.	Kodra. Cultivated.
"	" <i>costatum</i> , Hook.	
"	<i>Isachne elegans</i> , Dalz. & Gibs.	Dunda.
"	" <i>Lisboa</i> , Hook. f.	
"	<i>Panicum prostratum</i> , Lamb.	Sarpar.
"	" <i>cruciforme</i> , Sibth.	Shimpi, Wag-bakt, i.e., "Tiger's claws."
"	" <i>colonum</i> , Linn....	Rovar, Sarvank, Hurund.
"	<i>Tricholena Wightii</i> , Nees.	Rard, Giri.
"	<i>Oplismenus compositus</i> , Beauv.	
"	<i>Setaria glauca</i> , Beauv. ...	Berdi, Bándra. The small variety, with yellow awn-like hairs is called Kolara. (Lisboa.)
"	" <i>italica</i> , R. Br.....	Kangoni, Kora-kangoni.
"	<i>Pennisetum typhoides</i> , Rich.	Báiri. Cultivated.
"	<i>Coix Lachryma</i> , Linn.....	Kasai, Ran-maka. Job's tears.
"	<i>Polytoca Cockii</i> , Stapf.	On the FitzGerald Ghât. (Lisboa.)
"	<i>Zea mays</i> , Linn	Buta, Maka. "Indian Corn."
"	<i>Oryza sativa</i> , Linn	Cháwal, Tándul. Rice.
"	<i>Arundinella stricta</i> , Nees.	Kotir.
"	" <i>tenella</i> , Nees.	

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
99. Gramineæ (Grasses.) — <i>Contd.</i>	<i>Arundinella spicata</i> , <i>Dalz.</i>	Banel.
"	" <i>avenacea</i> , <i>Munro.</i>	
"	<i>Dimeria ornithopoda</i> , <i>var.</i> <i>tenera</i> .	
"	<i>Saccharum officinarum</i> , <i>Linn.</i>	Serdi, Uss. Sugarcane.
"	<i>Arthraxon lanceolatus</i> , <i>Hochst.</i>	
"	" <i>echinatus</i> , <i>Hochst.</i>	Faradiacha-gds.
"	" <i>molle</i> , <i>Nees.</i>	
"	<i>Ophiurus corymbosus</i> , <i>Gaert. f.</i>	Karod.
"	<i>Rotthelia divergens</i> , <i>Hack.</i>	
"	<i>Manisuris granularis</i> , <i>Linn. f.</i>	Kangoni.
"	<i>Ischaemum conjugatum</i> , <i>Roxb.</i>	Bher.
"	" <i>pilosum</i> , <i>Wight.</i>	Kunda, Pharan.
"	" <i>laxum</i> , <i>R. Br...</i>	Sukál.
"	<i>Pogonatherum saccharoides</i> , <i>Beauv.</i>	Bamboo grass, Matheran.
"	<i>Heteropogon contortus</i> , <i>Roem & Schult.</i>	(Woodrow.) Kusal, Pándhri-Sukál, Bál. Spear grass.
"	<i>Andropogon polystachius</i> , <i>Roxb.</i>	
"	" <i>muricatus</i> , <i>Roth.</i>	Valerum, Valla. The root is the well- known, sweet-scented " Khaskhas" grass.
"	" <i>Schoenanthus</i> , <i>Linn.</i>	Rusha, Rosha, Lemon grass, Ginger grass, Common at Mahables- war. A large grass with scented roots, from which an oil (Rosha) is extrac- ted for export to the Mediterranean ports. It is used for adulterating Otto of Roses in Turkey. (Lisboa).
"	<i>Anthistiria cimbaria</i> , <i>Roxb.</i>	
"	" <i>ciliata</i> , <i>Linn. f.</i>	Batáni.
"	<i>Apluda aristata</i> , <i>Linn.</i> ...	Tulsi, Bungrat.
"	<i>Avena sativa</i> , <i>Linn.</i>	Jao. Oat. Cultivated.
"	<i>Cynodon dactylon</i> , <i>Pers...</i>	Harala, Hariyali, Durb, Durba.
"	<i>Chloris barbata</i> , <i>Severt. ...</i>	Goshya.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
99. Gramineæ (Grasses.) —Contd.	<i>Tripogon capillatus</i> , <i>Jaub.</i> and <i>Spach.</i>	At Matheran, on trees. "Inter muscos, supra arbores et saxa," (Jac- quemont.)
"	<i>Tripogon Lisboa</i> , <i>Staff.</i> ...	
"	<i>Eleusine corocana</i> , <i>Gaert.</i>	Náchni, Nágli, Rági. Ex- tensively cultivated.
"	<i>Eragrostis ciliaris</i> , <i>Link.</i> ...	Undir-puncho, i.e. "Rat's foot."
"	" <i>unioloides</i> , <i>Nees.</i>	Poi, Poki.
"	<i>Triticum vulgare</i> , <i>Linn.</i> ...	Gahun. Wheat. The wheat cultivated on the high table-land of the Deccan and in Maha- bleshwar is said to have, in a given bulk, about $\frac{1}{2}$ more weight than that raised in the plains. Be- low the ghâts, the climate does not suit it. (Lisboa.)
"	<i>Bambusa arundinacea</i> , <i>Roch.</i>	Váns.
"	" <i>vulgaris</i> , <i>Wendl.</i>	Kuluk, Bambu.
"	" <i>arundo</i> , <i>Nees</i> ...	Chivari.
"	<i>Oxyanthera Stocksii</i> , <i>Munro.</i>	
"	<i>Dendrocalamus strictus</i> , <i>Nees.</i>	

DIVISION B.—CRYPTOGAMIA or FLOWERLESS PLANTS.

CLASS I.—VASCULAR CRYPTOGAMS.*

100. Lycopodiaceæ (Club mosses.)	<i>Lycopodium imbricatum</i> .	Kala turu. In damp, shady places.
"	" <i>obtusatum</i> , <i>Fair- bank.</i>	Mahableshwar.

* The Cryptogamia differ from the Phanerogamia in having no flowers containing anthers and ovules. The vascular Cryptogams "possess true vessels, and are also characterised by the development from the spore of a leafless prothallium of small size, bearing the oospheres from which, after fertilisation, the spore-bearing plant is produced." (Thomé and Bennett's "Text Book of Structural and Physiological Botany," p. 240.)

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
101. Filices (Ferns). [*]		
Sub-order—		
Polypodiaceae	<i>Leucostegia immersa</i> , Wall.	On trees and banks at Bombay Point. The fronds in this and the next species fall off after the spores have ripened. (Fairbank.)
"	" <i>pulchra</i> , Don.	On trees; Koyna Valley. (Fairbank.)
"	<i>Schizoloma ensifolia</i> , Swartz.	At Hartlot, near Saddle-Back Hill. (Fairbank.)
"	<i>Adiantum lunulatum</i> , Burm.	Hansraj, Rajhans, i. e., "Goose-foot" fern.
"	" <i>capillus Veneris</i> , Hook.	Maidenhair fern. On wet rocks, near Panchgani (Cooke); and in the well at the Dharmasala, Panchgani Road. (Fairbank.)
"	<i>Cheilanthes farinosa</i> , Kaulf.	Patkuri. Silver fern. The "Copper fern" variety is found at Pertabgarh. (Fairbank.)
"	<i>Pteris longifolia</i> , Linn. ...	Near Kineshwar, on the road to Mahad. (Fairbank.)
"	" <i>pellucida</i> , Presl. ...	Koyna Valley. (Fairbank.)
"	" <i>quadriaurita</i> , Retz...	Common.
"	" <i>aquilina</i> , Linn. ...	Netsya, Brake fern.
"	<i>Campteria biaurita</i> , Linn.	
"	<i>Blechnum orientale</i> , Linn.	At Kás. (Fairbank.)
"	<i>Asplenium lunulatum</i> , var. <i>trapeziforme</i> , Roeb.	On trees, Mahableshwar. (Fairbank.)
"	" <i>falcatum</i> , Lam.	
"	" <i>laciniatum</i> , Wall. ...	
"	<i>Athyrium Filix-femina</i> , var. <i>flabellulata</i> , Clarke.	Lady-fern.
"	" <i>gymnogrammoides</i> , Kl.	
"	<i>Anisogonium esculentum</i> , Presl.	Common on the Yenna, Mahableshwar. (Fairbank.)

* Ferns have usually a simple or branched creeping rhizome; less often an erect, simple, woody stem, as in the tree-ferns. The rhizome or stem dies off slowly at its lower end or becomes lignified. (Thomé and Bennett, p 308.)

The ferns in this list are arranged in the order adopted in Col. Beddome's Hand-book of the Ferns of British India.

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
101. Filices (Ferns). Sub-order— Polypodiaceæ—Contd.	<i>Actiniopteris dichotoma</i> , Forsk.	Palm fern. Khandala Ghât on Mahableshwar Road, and Kartraj Ghât.
"	<i>Aspidium polymorphum</i> , Wall.	In a thicket on the South side of the stream, half- way between the lake and Lingmala, Maha- bleshwar. (Fairbank.)
"	" <i>cicutarium</i> , Sw. Syn. <i>Sagenia coadunata</i> , Wall.	Kājāryacha Bashing. In- dian Beech-fern.
"	<i>Lastrea Filix-mas</i> , var. <i>elongata</i> , Hook. & Grev.	Male-fern, Bombay Point. (Fairbank.)
"	<i>ib.</i> var. <i>cochleata</i> , Don.	Button-fern. So called from the appearance of the pinne. (Fairbank.)
"	" <i>odontoloma</i> , Moore.	At Kate's Point, and along the crest of the hill on the way to Panchgani, where it grows on walls. (Fairbank.)
"	" <i>sparsa</i> , Don.	On the Yenna, near the falls. (Fairbank.)
"	" <i>crenata</i> , Forsk. Syn. <i>L. eriocarpa</i> , Decne.	On the Western Ghâts, but rare. (Beddome.)
"	<i>Nephrodium molle</i> , Desv.	
"	<i>Nephrolepis cordifolia</i> , Linn.	On trees and rocks. Tu- bers like small potatoes grow from its roots. (Fairbank.)
"	<i>Drynaria quercifolia</i> , Linn.	Kadik-pān. Indian Oak- fern.
"	<i>Pleopeltis linearis</i> , Thunb.	On trees. (Fairbank.)
"	" <i>membranacea</i> , Don.	Fronds deciduous. (Fair- bank.) On Umbar trees.
"	<i>Polybotrya appendiculata</i> , Willd.	Only one specimen of this fern is known to have been found at Mathe- ran. It was for many years in my garden at "Underwood." I have seen it covering quite an acre of ground on the Ghât at Ghotne, east of Ratnagiri.
"	<i>Gymnopteris variabilis</i> , var. <i>lanceolata</i> , Hook. Herb Co.	

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
101. Filices (Ferns). Sub-order— Polypodiaceæ— <i>Contd.</i>	<i>Gymnopteris contaminans</i> Wall.	Rooting fern. Once plentiful on favourite sites at Matheran. Now almost exterminated.
"	" <i>suberenata</i> , <i>Hook & Grev.</i>	Near Hart Point, Matheran.
Sub-order— Osmundaceæ.		
"	<i>Osmunda regalis</i> , Linn. ...	Nadicha Mûrûd. The Royal Fern. Below the lake, Mahableshwar, and at Lingmala and elsewhere. Still fairly plentiful.
Sub-order— Schizandaceæ.		
"	<i>Lygodium flexuosum</i> , Sw.	Haneraj-yel. A beautiful climbing fern.

CLASS II.—CELLULAR CRYPTOGAMS.

SUB-CLASS 1.—MUSCINEÆ.* (Mosses and Liverworts.)

102. Musci (Mosses), ...	<i>Octoblepharum albidum</i> , <i>Halic.</i>
"	<i>Tortula bombayensis</i> , <i>Mitten.</i>
"	" <i>cylindrotheca</i> , <i>Mitten.</i>
"	<i>Macromastrium sulcatum</i> , <i>Brid.</i>
"	<i>Meteorium scrabiasculum</i> , <i>Mitten.</i>
"	<i>Stereodon angustus</i> , <i>Mitten.</i>
"	<i>Hypnum squarrosum</i> , <i>F. E. Tripp.</i>
"	" <i>bryoides</i>
"	" <i>reflexum</i> , <i>F. E. Tripp.</i>

* In the mosses and the higher liverworts "we have, for the first time, a differentiation of the vegetative structure into distinct stem and leaves." (Thom' and Bennett, p. 240). The Mosses are generally of a higher type than the Hepaticæ or Liverworts, "no longer possessing any of the characteristic features of Thallogeas, but having a cylindrical stem covered with leaves." (ib., p. 301).

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
SUB-CLASS 2.—THALLOPHYTA,* (Leafless cellular Cryptogams.)		
103. Fungi.		
Sub-order—		
Carpomycetes (Mushrooms).	<i>Lepiota procera</i> , <i>Serp...</i>	} Alambon, Mushroom.
"	" <i>cristata</i> , <i>A. & S...</i>	
"	<i>Armillaria ramentacea</i> , <i>Bull.</i>	
"	<i>Pleurotus ostreatus</i> , <i>Jacq.</i>	
"	<i>Cortinarius genitilis</i> , <i>Fr.</i>	
"	<i>Galera tenera</i> , <i>Schaeffer...</i>	
"	<i>Bolbitis apicaulis</i> , <i>W. G. Smith.</i>	
"	<i>Agaricus campestris</i> , <i>Linna.</i>	
"	<i>Psilocybe adus</i> , <i>Pers...</i>	
"	<i>Panæolus retirugis</i> , <i>Batsch</i>	
"	<i>Psathyrella arata</i> , <i>Berk...</i>	
"	<i>Coprinus comatus</i> , <i>Fr...</i>	
"	" <i>stramentarius</i> , <i>Fr.</i>	
"	" <i>platypus</i> , <i>Berk...</i>	
"	" <i>congregatus</i> , <i>Berk...</i>	
"	<i>Schizophyllum commune</i> , <i>Fr.</i>	
"	<i>Lentinus tigrinus</i> , <i>Fr.</i>	
"	" <i>caespitosus</i> , <i>Currey.</i>	
"	<i>Boletus luridus</i> , <i>Schaeffer.</i>	} Phanasamba.
"	<i>Polyporus spongia</i> , <i>Britz.</i>	
"	" <i>hirsutus</i> , <i>Britz.</i>	
"	" <i>annuosus</i> , <i>Britz.</i>	
"	" <i>perennis</i> , <i>Fr...</i>	
"	" <i>crassipes</i> , <i>Currey.</i>	
"	" <i>cinnabarinus</i> , <i>Fr.</i>	
"	<i>Dædalia gibbosa</i> , <i>Eng...</i>	} Kerambi, Paranza.
"	" <i>ferruginea</i> , <i>Schum.</i>	
"	<i>Trametes umbrinus</i> , <i>Currey.</i>	
"	<i>Hexagonia Kurzii</i> , <i>Currey.</i>	

* Thallophytes are plants which have no leaves and no vascular tissue, but are constructed of cells only. (Thomson and Bennett, p. 239.) The Zygomycetes are "common mould-fungi, growing on living plants, decaying vegetable substances, or the fine surface of organic solutions." (Ib., p. 271.) The Myxomycetes or Slime Fungi "are distinguished from all other plants by the fact of their cells being without a cell-wall during the whole of their vegetative period. It is only when their protoplasm comes to rest, or their growth has ceased on the formation of the fructification, that the protoplasm breaks up into small cells provided with a cell-wall, but not forming a true tissue. They live on decaying and putrefying vegetable substances." (Ib., p. 269.)

Natural Order.	Genus and Species.	Vernacular or English name, use, habitat, &c.
103. Fungi—Contd.		
Sub-order—		
Carpomycetes		
(Mushrooms).—		
Contd.	<i>Hydnum aureum</i> , Fr. ...	
"	<i>Thelephora palmata</i> , Fr.	
"	" <i>terrestris</i> , Berk.	
"	<i>Corticium laeve</i> , Britz. ...	
"	" <i>violaceum</i> , Kirtikar	
"	<i>Clavaria inaequalis</i> , Berk.	
"	" <i>fusiformis</i> , Sow.	
"	" <i>ciurea</i> , Bail. ...	
"	" <i>alba</i> , Kirtikar ...	
"	<i>Calocera viscosa</i> , Fr.	
"	<i>Lycoperdon saccatum</i> , Vahl.	Bhuiphod, Puff Ball,
"	<i>Cyathus striatus</i> , Berk. ..	
"	<i>Hirneola auricula-Juda</i> Fr.	
"	<i>Tremella mesentrica</i> , Retz.	
"	<i>Hypoxyton atropurpureum</i> , Fr.	
"	" <i>serpens</i> , Fr. ...	
"	<i>Xylaria polymorpha</i> , Fr.	
Sub-order—		
Zygomycetes		
(Mould-Fungi).	<i>Mucor mucedo</i> , Linn. ...	
104. Mycetozoa		
(Slime-Fungi).*	<i>Tubulina cylindrica</i> , Rost.	
"	<i>Stemonitis fusca</i> , Rost. ...	
"	<i>Arcyria ferruginea</i> , Rost. ...	

* I am indebted to Surgeon-Major Kirtikar for the following information regarding this order. The Mycetozoa, which are referred to in the preceding note as "Myxomycetes," and were at one time known as "Myxogastres,"—the designation given by Fries in 1833—for which the term "Myxomycetes" was substituted by Wallroth in 1836—resemble, in their mature condition, some groups of fungi, but are now considered by some later authorities as "entirely outside the vegetable kingdom." (George Massee's "Evolution of Plant-life—Lower Forms.") The spores, instead of producing a *mycelium*, as in fungi, give birth to swarm-cells, which coalesce and form a *plasmodium*. This process has been held to indicate a relationship with the lower forms of animal life. Hence the designation "Mycetozoa," given by De Bary, in 1858, and accepted by Rostafinski and more recently by Mr. Arthur Lister, F. L. S., in his monograph (1894) on the species of 'Mycetozoa' exhibited in the herbarium of the British Museum.

G.		I.		Karit	
Gajkarni	67	Itari	46, 67	Karivana	41, 45
Gaidar	61			Karod	99
Galumb	76			Karpa	29
Gadolg	93			Karoti	83
Ganem	25, 47	Jalindar	79	Karva	67
Gangotri	47	Jambul	37	Karvand	56
Garud-yel	32	Jangli jira	47	Karvi	67
Gaulan	59	" kajorni	28	Karwar	67
Gavel	61	" ramphal	14	Karwat	69, 83
Gahun	99	Jao	13, 99	Kas	18
Gela	46	Jatli	59	Kasu	18
Ghagri	32	Jirao	47	Kasal	99
Ghapat	34			Katkura	46
Ghati	32			Katri	68
Ghaveri	68			Kat-yel	42
Ghol	83			Kaula	33
Ghol-baji	12			Kaundal	42
Ghati	27			Kauri	59
Giri	99			Kausi	17
Girsao	46			Kavala	82
Godra	67			Kawdar	88
Godri	91			Kazorlich-yel	28
Gogal	33			Kel	83
Goinda	53			Kerambi	103
Gol	83			Kevan	17
Goldar	17			Khair	32
Gomati	42			Khajoti	83
Gondal	95			Khakra	32
Gondali	47, 97			Khandadu	90
Goora	25			Khapri	69
Gopali	69			Khapriyel	51
Goshya	99			Khar-khodi	57
Goti toran	27			Khashtas	42, 99
Got-yel	92			Khiral	18
Guitat	90			Khopri	45
Gakumb	76			Kirkind	82
Guma	69			Kirmira	22
Gura	67			Kodra	99
Guti	27			Kokam	14
H.		J.		K.	
Halda	24			Kabar	7
Halera	23			Kachun	39
Halunda	32			Kadak	23
Hambor	32			Kadamb	46
Hansraj	100			Kadhi-nimb	22
Hansraj-yel	100			" -pak	22
Hanula	99			Kadik-pau	100
Hariyal	14, 27			Kadu karanda	91
Harkia	3			Kajaryacha Bashing	100
Har-kinjal	82			Kaju	93
Hasina	46			Kajuri	90
Hirandodi	57			Kajucha-ghas	64
Hirda	36			Kala ankra	67
Harund	99			" kirat	67
				" kuda	56
				" pisa	76
				" suta	67
				" tura	101
				Kalabi	87
				Kalam	48
				Kali itari	67
				" musali	90
				Kamack	24
				Kamuni	62
				Kanchan	32
				Kandal	17
				Kaugoni	26, 99
				Kanocha	82
				Kauphuti	32
				Kanta-kumbal	52
				Kand-vel	27
				Kaola	54
				Kaoli	57
				Kapsi	83
				Karad kangoni	62
				Karambal	2
				Karanj	32
				Kardai	47
				Kardor	15
				Kardori	15
				Karkhand-icha-yel	32
				Karicha gavat	63
				Karwa	99
				Karvand	56
				Karvi	67
				Karwar	67
				Karwat	69, 83
				Kas	18
				Kasu	18
				Kasal	99
				Katkura	46
				Katri	68
				Kat-yel	42
				Kaula	33
				Kaundal	42
				Kauri	59
				Kausi	17
				Kavala	82
				Kawdar	88
				Kazorlich-yel	28
				Kel	83
				Kerambi	103
				Kevan	17
				Khair	32
				Khajoti	83
				Khakra	32
				Khandadu	90
				Khapri	69
				Khapriyel	51
				Khar-khodi	57
				Khashtas	42, 99
				Khiral	18
				Khopri	45
				Kirkind	82
				Kirmira	22
				Kodra	99
				Kokam	14
				Kolara	99
				Kolisna	7
				Kolisra	7
				Komphal	91
				Kora kangoni	99
				Koranti	67
				Koshimb	29
				Kothak	44
				Kotir	99
				Kovala	32
				Kuari	17
				Kuda	56
				Kula	32, 92
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				Kuluk	99
				Kumbha	37
				Kunda	99
				Kunti	22

Sálpmlí	23	Surangi	14		
Sambhar-yel	61	Súta	67	V.	
Samudra-shoka	61				
Sápacha kánda	95				
Sanmukh patri	21				
Saráta	13, 71				
Sarpar	99	T.			
Sarub	13	Taital	56	Vagati	32
Saryauk	99	Taman	39	Valerum	99
Sárwad	46	Támbat	8	Valla	99
Sata	67	Támbdi karicha		Vsnda	79
Satwin	14	gavat	63	Vans	99
Savar	16	Támbdi Savar	15	Vasan-yel	4
Serdi	99	Tán	4	Vátoli	4
Shah-tut	83	Tandul	99	Vát-yel	36
Shemli	32	Tarali	58		
Shendon-vel	91	Tarti	7	W.	
Shend-vel	28, 91	Telicha-yel	28	Wad	83
Sheral	73	Térda	21	Wag chaora	88
Shendri	36	Tharambal	67	Waghakt	99
Sheri	89	Thor	82	Waiti	67
Sherai	72	Tikatna	22	Waiwarang	51
Shevali	95	Tíla	46	Wala	95
Shewal	63, 69	Tipau	29	Wálio	67
Shewan	68	Tíral	18	Walunj	84
Shikakai	32	Teran	27	Wanraj	32
Shimpi	99	Talsi	99	Wardi	42
Shindola	82	Tun	24	Waras	66
Shiral	18	Tupa	46	Warung	16
Siras	32	Turti	63	Wátanyal	4
Sirdoli	57	Tuti	83	Wawri	51
Sirsa	76			Wamb	29
Sisam	32	U.		Wumbli	85
Situt	83	Ud	23	Wundri	19
Son-Champa	2a	Udi-chimayot	59		
Sonki	47	Ukashi	36	Y.	
Sukal	99	Umbar	83	Yekadi	9
Sundar	31	Undir puncho	99	Yek-yel	32
Suran	46, 95	Uss	99	Yonkli	26
				Yesti	26
				Yesur	68

SUPPLEMENTARY NOTE ON THE FLORA OF
MATHERAN AND MAHABLESHWAR.

BY THEODORE COOKE, LL.D., F.G.S., C.I.E.

AN observant visitor to Matheran cannot fail to be struck with the way in which certain plants disappear as he ascends the hill from Narel. The Teak tree (*Tectona grandis*), the skeleton of whose dried leaves is so like lace-work, disappears before half the ascent is accomplished. The *Sterculia urens*, which looks as if its bark had been stripped off, and which is a very conspicuous tree along the ascent, also disappears, as well as the *Phyllanthus Emblica*, whose gooseberry-like fruit is used by the natives for pickling. On Matheran hill itself, many plants are met with which are not found on the plains below; and as we ascend to a still higher elevation and reach the table-land of Mahableshwar, 2,000 feet above that of Matheran, we find the effect of increased elevation in the gradual thinning out of certain plants, and the appearance of new ones. This is particularly noticeable on the ascent from the Koyna Valley,—which is about 1,500 feet below the table-land of Mahableshwar,—as the paths, by several of which the ascent may be accomplished, pass along well-wooded slopes.

Ascending from the Koyna, the valuable Ain tree (*Terminalia tomentosa*) is very soon lost to view, and the only representative of the family (COMBRETACEÆ) on the hill summit is the *Terminalia Chebula*, which supplies the Myrabolans so largely exported for the tannin they contain.

In the same way the *Grewia Microcos* and the *Wrightia tinctoria* disappear, the former very soon, while the latter is carried up very near to the plateau on the Ghât Road, near the small village of Mettala. The *Casearia graveolens* may be found still higher up, but does not reach the summit, though it grows luxuriantly along the Ghât Road, not very far below Bombay Point, while the *Albizia stipulata*, which is such a conspicuous tree at Matheran, with its dark, reddish-brown, papery pods, and its large, pinkish, brush-like flowers, ceases abruptly on the FitzGerald Ghât Road, about 4 miles from Mahableshwar.

Looking through the list, so carefully and laboriously prepared by Mr. Justice Birdwood, I would make the following remarks:—

The *Reinwardtia trigyna*, which, in the introductory Note to the Catalogue, is said to have been found truly wild on Varandha Ghât, I have found wild in the Koyna Valley; at least I have found it growing luxuriantly in a dense jungle near the Koyna, in a locality far removed from any human habitations. The *Brugmansia candida* is not indigenous. It is, I believe, a native of Peru, but it has found the climate and soil of Mahableshwar well suited to its development, as it grows most luxuriantly over the hill, and has been planted along the FitzGerald Ghât Road. Its large, white, funnel-like flowers render it a very conspicuous object.

The *Clematis Wightiana* is not, as far as I know, found at Matheran, nor does it extend much below the summit of Mahableshwar. Its flowers are large and yellow, but as it flowers in January and February, when the hill is not much frequented, its blossoms are rarely seen. The plants in Orders 2 and 3 do not occur at Mahableshwar. The *Cocculus macrocarpus* does not quite reach the hill summit, though it may be found just below the Dhobi's Fall. *Polygala persicariæfolia* does not, I think, occur at Matheran, and, indeed, is rare at Mahableshwar. It may be met with on the path leading from Lingmala Ravine towards the Waterfall. *Ancistrocladus Heyneanus*, though tolerably common at Matheran, does not reach Mahableshwar; nor do the plants of the Order GUTTIFERÆ, immediately preceding. Of the MALVACEÆ, neither *Hibiscus hirtus*, *Thespesia Lampas*, nor the *Bombax*, and of the STERCULIACEÆ, none of the plants catalogued are to be found at Mahableshwar. The *Triumfetta rhomboidea* is tolerably common, the *Eleocharpus oblongus* rare.* There is a good tree of the latter in Lingmala garden, and a couple on the bank of the stream below the house. There is also a solitary tree in the compound of Prospect Cottage, at the corner of the Cross Road, just opposite the entrance gate of Temple Hall. Many of the leaves of this tree turn red, which render it a conspicuous

* "*Eleocharpus oblongus* grows in luxuriant abundance all along the stream above Lingmala Falls. It is in full flower at the end of May." (C. Macnaghten). It is abundant in the woods at Lingmala. I have noticed it also on the Panchgani road, about two miles from Mahableshwar.—H. B.

object among the foliage of the woods, and the fringed petals of its flowers are very beautiful, the brownish-red calyx appearing through the interspaces between the petals. All the plants catalogued under the genus *Impatiens* are to be found at Mahableshtar, among them a very remarkable one, a yellow balsam (*I. Dalzellii*). *Ecodia** *Roxburghiana* does not occur at Matheran, and is somewhat rare at Mahableshtar. One tree (a male) may be found on the Panchgani Road, a few yards beyond the turn to Kate's Point. There is another tree at the fourth culvert on the FitzGerald Ghât Road, and a little further down the road, close to a culvert, are two trees, a male and female. A knowledge of some localities where a tolerably rare plant may be found will be useful to Collectors. Neither of the Orders BURSERACEÆ and MELIACEÆ are represented on Mahableshtar.

The *Mappia foetida* is a very remarkable as well as common tree at Mahableshtar. I do not think it occurs at Matheran. The odour of its yellowish flowers, which appear in October, is most offensive, savouring of carrion. Visitors to the hill are often puzzled by the strange odour, and unable to account for it. There is a tree in the Superintendent's compound, at the side nearest the Club, and several trees may be found close to the road, just below the Bund. *Zizyphus rugosa* is common both at Matheran and Mahableshtar, and its white berries are edible, though not very palatable. *Zizyphus xylopyrus* does not occur at Mahableshtar, while the *Scutia indica* is only found on the higher Ghâts and does not descend to the level of Matheran. It is known at Mahableshtar as the "Wait-a-bit thorn," as, when its hooked-thorns catch the clothes of a rambler through the woods, there is no going forward till the thorns are unhooked,—often a difficult process. It may be easily identified by its native name "Chimat."

Hemiglyssa canescens does not ascend to Mahableshtar, nor does *Schleichera triflora*, but the Order (SAPINDACEÆ) is abundantly represented by the shrub *Allophylus Cobbe*, which, with its soft, trifoliate leaves and long racemes of small, white flowers, is scattered every-

*"I have seen many trees of *Ecodia Roxburghiana* at Mahableshtar, some in flower, just opposite Bella Vista, and a great many in the woods between the Dhobi's Waterfall and Glengarry" (O. Macnaghten). There are a good many trees of *Ecodia* on the FitzGerald Ghât, near the Terraces. The *Toddalia aculeata*, which belongs to the same Order, is much rarer. I have seen only one plant, which was shown me by Dr. Cooke, near the Dhobi's Waterfall, at the first turning to the right on the way to Lodyck Point.—H. D.

where over the hill-top. The LEGUMINOSÆ are largely represented on both hills, but it is a remarkable fact that, while in Matheran there are several trees belonging to the Order, there is not a single tree on Mahableshwar belonging to it.* The *Crotolaria*, *Smithia*, *Desmodium*, *Phaseolus*, *Vigna*, *Alyosia*, *Cylista* and *Flemingia* are common to both hills; but the only *Acacia* on the summit of Mahableshwar is *Acacia Intsia*.

Of the ROSACEÆ, the *Rubus lasiocarpus* or Mahableshwar Raspberry is very common and well-known. This plant is indigenous here and on the highest Ghâts to the southward. *Rubus moluccanus* has been found at Mahableshwar, but it is very rare. It may be found in a ravine on the road to old Mahableshwar. I found it very abundantly on the highland (Nowera Elliya) in Ceylon.

Of the RUBIACEÆ, neither *Adina* nor *Stephegyne* occurs at Mahableshwar, the *Wendlandia Notoniana* does not occur at Matheran; and I have only seen it in Mahableshwar near the banks of the stream (Yenna) below Lingmala. *Psychotria truncata* is a rare plant, occurring, as far as I know, at Mahableshwar, in a single locality, which being far removed from habitations and in a dense jungle, it is difficult to describe.† *Mussaenda frondosa* does not ascend to Mahableshwar, though common at Matheran and in the Koyna Valley, where its velvety, orange flowers and curious, white, leaf-like bracts may be seen throughout the woods. Most of the COMPOSITÆ are common to both hills, but *Elephantopus scaber* does not ascend to Mahableshwar, though plentiful at Matheran and in the Koyna Valley, and the same may be said of *Cyathocline lyrata*, while I do not know that *Adenostemma viscosum* or *Adenoon indicum* have been found at Matheran, though common at the higher elevation. The commonest of the Composites at Mahableshwar, scattered all over the hill with the brake-fern, is *Conyza stricta*.

* Hooker, in speaking of Pachee (7,000 ft. high) near Darjeeling, says:—"The absence of Leguminosæ was most remarkable and the most prominent botanical feature in the vegetation of this region. It is too high for the tropical tribes of the warmer elevations, too low for the Alpines, and probably too moist for those of temperate regions; cool, equable, humid climates being generally unfavourable to that order." (*Himalayan Journals*, Vol. I, p. 112).

† "Found several plants of it (May, 1890) growing on either side of the path from Falkland Point to the Chinaman's Waterfall, not very far from the gorge of the waterfall," (C. Macnaghten). There are several plants on the same path and nearer Falkland Point. They were first shown me by Dr. Cooke.—H. B.



Of the CAMPANULACEÆ, the little *Wahlenbergia gracilis* does not grow at a low elevation. It is not found at Matheran and is very rare at Mahableshwar, the elevation being apparently insufficient, for at the high elevation of Newera Eliya, Ceylon, it grows very abundantly.

The *Sideroxylon tomentosum*, which is very abundant at Matheran, does not seem to thrive at Mahableshwar. It is nowhere found near the central portion of the hill-top, and is confined to its edges. It is to be met with on the path-way up to Lodwick Point, and also occurs near Bombay Point. Neither *Bassia latifolia* nor *Mimusops Elengi* occurs at Mahableshwar, while the Order EBENACEÆ does not possess a single representative.

Symplocos Beddomei is not met with at Matheran, but is tolerably plentiful at Mahableshwar. It flowers in the cold season; its blossoms have the odour of the hawthorn, and its berries, which ripen in May, are blue. There are one or two trees just opposite the gate of the Cemetery. The *Jasminum arborescens* is common to both hills, and its fragrant, white flowers are seen in great profusion in April. The *Olea dioica* which is very common at Matheran, is rarely met with in the Mahableshwar woods, while the *Ligustrum neilgherrense* is very common on the latter hill, and does not occur at all on the former. Its fragrant white flowers appear abundantly in October. Of the APOCYNACEÆ there is but one representative* on the Mahableshwar hill, and that is a rare plant, the *Rauwolfia densiflora*. It may be found in the ravine below the Forest Officer's bungalow at Lingmala. Its white flowers appear in April. Of the ASCLEPIADS, the *Calotropis gigantea* does not ascend to the elevation of Mahableshwar. The most remarkable plant of the Order which occurs there is the *Gynanema sylvestris*, which is an extensive climber, with small, yellow flowers, appearing in the hot weather. The leaves of this plant, when chewed, possess the strange property of destroying for a time the taste for sugar, while exercising no effect on the taste for substances other than saccharine. If two or three leaves be chewed and the tongue and palate moistened with the juice, the result of taking a little sugar in the mouth is very curious. It appears just like so much sand, while salt or anything not saccharine tastes just as usual.

* I have found another representative of this Order, the *Tabernaemontana dichotoma*, at Mahableshwar.—H. B.

Of the LOGANIACEÆ, the *Buddleia asiatica* is the only plant of the Order at Mahableshwar. It is very rare. There is one plant at Lingmala, near the out-houses of the bungalow, and I have seen a plant on the FitzGerald Ghât. Of the GENTIANÆ, the little purple *Exacum Lawii* is all over the Mahableshwar hill, in October, amongst the grass, but dies very soon after the rains cease. The *Swertia decussata* is found at Mahableshwar occasionally, but is not common there. It is very abundant on the hill-top above the Panchgani travellers' bungalow. An infusion of this plant is used by the natives as a febrifuge.

The Order BORAGINÆÆ is represented on both hills by the genus *Paracaryum*.

The *Paracaryum coelestinum* is known as the Mahableshwar "Forget-me-not." It is very abundant both here and at Matheran. Two other *Paracaryums* are tolerably common at Mahableshwar, but as far as I know, do not occur at Matheran. The *P. malabaricum* is the more common, and may be found in large quantities at the Bund. *P. Lambertianum** may be found on the cliff, opposite the Dhobi's Waterfall, below General Barr's bungalow. Of the SOLANACEÆ, the *Solanum giganteum* is very abundant at Mahableshwar, but does not, as far as I recollect, occur at Matheran. It is to be found everywhere on the former hill, and its bunches of red berries are handsome.

The *Heterophragma Roxburghii*, which is very common at Matheran, does not seem to thrive at Mahableshwar. I only know of two trees at the latter place, and these are poor stunted specimens. One of them is just over the Yenna Waterfall, and the other a few yards beyond the thirtieth mile on the Satara Road.

Of the ACANTHACEÆ, *Thunbergia fragrans* may be found all along the Panchgani Ghât, and on the road from Panchgani to Mahableshwar, but strange to say, it ceases at the sixty-eighth mile, half way between these stations. It is somewhat remarkable that it does not extend to Mahableshwar itself, as it is very abundant at the high elevation of Newera Eliya, Ceylon. The term *fragrans* is a misnomer, as its flowers are destitute of fragrance.

Of the BARLERIAS, *E. Prionitis*, with yellow flowers, is very common on the road up to Matheran, but does not occur anywhere near Mahableshwar. *Barleria strigosa*, with large blue flowers, is common

* I have also found it, with Dr. Cooke, on the FitzGerald Ghât.—H. B.

at Matheran, where it may be found in abundance below Ponsonby's Spring, but is only to be found on the slopes of Mahableshwar and not on the hill-top. It may be seen in flower in the cold season, on the slope some way down below the Dhobi's Glen. *Ecbolium Linneanum*, which is very common at Matheran, and has green flowers, is not found at Mahableshwar; nor is the magnificent *Calacanthus Dalzelliana* which grows in profusion on the wet rocks on the road up to Matheran, about a mile below the *Chauki*. Of the VERBENACEÆ, the *Callicarpa lanata* is common to both hills, the *Tectona grandis* does not reach even half-way up the ascent to Matheran, and the *Premna coriacea* and *Gmelina arborea* do not grow at Mahableshwar. *Vitex Negundo* will no doubt flourish on either hill; it has been largely planted along the FitzGerald Ghât, and *Vitex leucocylon* is to be found in the Koyna Valley. The *Clerodendron serratum* is not found on Matheran, nor on the Mahableshwar hill-top, but it may be found about Lingmala Ravine and on the Panchgani Road; it also occurs on the slope below Bombay Point on the road to the Koyna. The most common of the LABIATÆ, both at Matheran and Mahableshwar, is *Leucas stelligera*. At Mahableshwar, another member of the genus occurs, *Leucas ciliata*, a larger and much less common plant than *L. stelligera*. *Dysophylla myosuroides* is not found at Matheran, but is common in the Mahableshwar water-courses. It is abundant in the *nulla* near the Sassoon Point Tennis Court, just below where the road from the bazaar crosses the stream. *Micromeria capitellata* (*M. Malcolmii* of Benthams) is a smaller plant, peculiar to Mahableshwar. It is found along the Yenna, below the Bund, and has a strong odour of peppermint.

The *Plantago major* is rare at Mahableshwar, and is not found at Matheran. It may be found on the banks of the Yenna River.

The *Lasiosiphon eriocephalus* is common to both hills, and is particularly abundant at Mahableshwar. The handsome climbing shrub *Elæagnus latifolia*, the undersides of whose leaves have a sheen-like silver, and whose pink-coloured fruit is edible, is also common to both hills. Of the LORANTHUS family, I have not found either *L. involucratus* or *L. lageniferus* at Mahableshwar. The *Osyris arborea* is not found at Matheran, although growing at Khandalla, which is close by. It can be readily identified by its native name, "Lotul." The Order EUPHORBIACEÆ is better represented at Matheran

than at Mahableshwar. The Crotons are entirely absent from Mahableshwar. *Fluggea Leucopyrus* ascends about half-way up the hill from the Koyna and then ceases; while of the three trees *Glochidion lanceolarium*, *Bridelia retusa* and *Macaranga Roxburghii*, the first only occurs in any quantity in Mahableshwar. Though the *Bridelia* does occur in one place, the top of the old Rotunda Ghat below Bombay Point, it does not, as far as I know, occur anywhere else,* and should, therefore, be hardly considered at Mahableshwar tree. The *Macaranga* does not grow at Mahableshwar at all, but the Bhoma (*Glochidion lanceolarium*) is very abundant. *Homonoia riparia* is to be found in beds of streams at Mahableshwar, not at Matheran, and may be collected in the bed of the ravine below the Dhobi's Waterfall. Of the URTICACEÆ, *Girardinia heterophylla*, a formidable stringing nettle, is common to both hills, as are also the *Boehmeria platyphylla*, var. *scabrella*, and the *Trema Wightii* (*T. orientalis*, Blume). *Fleurya interrupta* is not found at Mahableshwar, nor is *Debregeasia velutina*, a native of Matheran. *Ficus glomerata* (Umbar) is common on both hills, but none other of the genus *Ficus* is to be found on the hill-top of Mahableshwar, except *Ficus palmata*, although *F. asperina*, *F. Rumphii* and *F. infectoria* may be met on the slopes. The *Artocarpus integrifolia* does not reach Mahableshwar; it is cultivated near villiages in the Koyna Valley, and there is one tree at the village of Mettala on the plateau below Bombay Point.

The *Salix tetrasperma* or Indian Willow does not grow at Matheran; it is abundant along the Yenna River, and may be seen in flower in October.

With regard to the ORCHIDACEÆ, the handsomest one at Mahableshwar is the *Ærides crispum*, which does not occur at Matheran,† and the most showy one at Matheran is *Ærides maculosum*, which is not found at Mahableshwar, though it is seen on the Panohgani Road.

The *Dendrobium barbatulum* is common to both hills, and is in flower in March and April. *Dendrobium ramosissimum* is not found on the summit of either hill. It is very abundant in the Koyna Valley.

* "I saw a large tree on the right of the path leading to Lodwick Point in flower and fruit, in April, 1899, and another tree to the right of the path about 20 feet beyond Lodwick Monument." (C. Macnaghten.)

† I found a specimen of *Ærides crispum* in my own compound at Matheran many years ago; and specimens have been brought to me from the valleys below.—H. B.

Dendrobium Macraei, a curious looking orchid, with many large pseudo-bulbs and a single leaf growing out of the terminal one, is very rare at Mahableshwar, and is not to be found at Matheran. It is very abundant in the Koyna Valley, some of the old trees along the river being literally covered with this, *Dendrobium ramosissimum*, and the bulbs of the *Cirrhopetalum fimbriatum*. A visit to the Koyna Valley will amply repay a plant-hunter. The ferns and orchids in some parts near the river are in the greatest profusion, and must be seen to be appreciated.

Of the two hills, Matheran and Mahableshwar, the former has the more varied flora, but several plants are found in Mahableshwar which do not exist at the lower elevation of Matheran. I have made a rough estimate, which is not correct to a dozen plants or so, that there are about 140 plants (excluding grasses) which occur at Matheran, and which do not occur at Mahableshwar, and that there are about 130 plants which are found at Mahableshwar, and not on Matheran, while there are perhaps 140 common to both hills.

. T. COOKE, LL.D., F.G.S.

In now reproducing the above Note, I have in some places altered the scientific names used by Dr. Cooke, as I have thought it better to follow the nomenclature of Hooker's Flora of British India, as in the Catalogue.

On the Flora of Partabgarh, which is really a part of the Mahableshwar system, the late Mr. Chester Macnaghten sent me some years ago the following note :—

“On Partabgarh I made a general note that its flora resembled that of Matheran ; for we find on that historical hill, in addition to the Mahableshwar trees, a great abundance of the others so characteristic of Matheran—*Grewia Microcos*, *Lagerstœmia parviflora*, *Woodfordia floribunda*, *Casearia graveolens*, *Albizzia stipulata*, *Leea staphylea*, (*L. sambucina* in the Catalogue), *Cocculus macrocarpus*, *Caraya arborea* and *Heterophragma Roxburghii*.—H. B.

